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MINUTES

OF THE

AQUEDUCT COMMISSIONERS,

1883-1884.

VOLUME 1.

NEW YORK:
EVENING POST JOB PRINTING OFFICE, BROADWAY AND FULTON STREET.
1884.

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MINUTES OF THE MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Created by an Act of the Legislature of New York, entitled "An Act to provide new reservoirs, dams, and a new aqueduct, with the appurtenances thereto, for the purpose of supplying the City of New York with an increased supply of pure and wholesome water," Chapter 490, Laws of the State of New York; passed June 1, 1883; which meeting was held at the Office of the Mayor of the City of New York on Wednesday, August 8, 1883, at 3 o'clock P. M.

The Commissioners present were:

The Mayor of the City of New York, Hon. FRANKLIN EDSON.

The Comptroller of the City of New York, S. HASTINGS GRANT, Esq.

The Commissioner of Public Works, HUBERT O. THOMPSON, Esq.

Commissioner JAMES C. SPENCER.

Commissioner GEORGE W. LANE.

Commissioner WILLIAM DOWD.

On motion of Commissioner THOMPSON, Commissioner Dowd was made temporary Chairman of the meeting.

On motion of Commissioner SPENCER, the Mayor was unanimously elected President of the Aqueduct Commissioners.

On motion of Commissioner THOMPSON, Commissioner William Dowd was unanimously elected Vice-President of the Aqueduct Commissioners.

On motion of Commissioner THOMPSON, James W. McCulloh was appointed Secretary of the Aqueduct Commissioners, and was thereupon duly installed by the President.

On motion of Commissioner THOMPSON, John R. Vernam was appointed Messenger of the Aqueduct Commissioners.

Commissioner SPENCER moved that a special committee, consisting of three of the Commissioners, be appointed by the President to report "General Rules and Regulations to govern the proceedings of the Aqueduct Commissioners."

The motion was carried unanimously, and the President appointed as such committee Commissioners Spencer, Dowd and Thompson.

And on motion of Commissioner SPENCER, the Secretary was directed to prepare and send to each of the Commissioners a copy of the report of the said committee as soon as the same was agreed upon by the committee.

On motion of Commissioner THOMPSON, the salary to be paid to the Secretary and to the Messenger of the Aqueduct Commissioners was referred to a committee to be hereafter appointed "On employees and their salaries."

The Counsel to the Corporation, George P. Andrews, Esq., being then present, returned to the Commissioners the forms of a lease from the Tribune Association to the Aqueduct Commissioners, of Rooms Nos. 77, 78, 108 and 109 in the Tribune Building, with his approval of said forms, excepting the clause requiring payment of rent "in advance;" whereupon,

On motion of Commissioner DOWD, the said form of lease was approved by the Commissioners, with the exception of the clause above named; which clause the Secretary was directed to have striken out, and, in lieu thereof, to have inserted the customary clause for the payment of rent "quarter-yearly at the end of each quarter," and in such amended form to have said lease duly executed by the President of the Commissioners.

Commissioner SPENCER offered the following resolution:

Resolved, That the Commissioner of Public Works be and he is hereby requested to submit to the Aqueduct Commissioners, as soon as practicable, a plan or plans, together with maps, specifications, estimates and particulars, for the construction of a new aqueduct and dams and reservoirs and their appurtenances, as contemplated, set forth and described in Section 2 of Chapter 490, of the Act of the Legislature of the State of New York entitled "An Act to provide new reservoirs, dams and a new aqueduct, with the appurtenances thereto, for the purpose of supplying the City of New York with an increased supply of pure and wholesome water;" and the said Commissioner of Public Works is hereby directed to include, set forth and embody in said plan or plans:

1st. Such a system or systems of water supply as

will, when perfected, secure all the water that can be obtained from the Croton Lake and River and its tributaries, for the use of the City of New York, with a proper and suitable aqueduct and reservoirs for the same; to the end that an increased storage and supply of water can be provided for the present aqueduct, at the earliest time practicable, and the new aqueduct to be constructed at an early day.

2d. A plan for the immediate construction of the reservoir, or reservoirs and dams, for the storage and retention of the water of the east branch of the Croton River and its tributaries, at a point near Brewsters Station, and known to the said Commissioner and the Engineer of the Department of Public Works as the "Sodom Reservoir."

3d. A plan and surveys and maps of the proposed line of the aqueduct, that will provide for two routes or lines in the northerly portion thereof, one of which will reach or terminate at the Croton River, below the Croton Dam, and near the proposed site of a dam known as the "Quaker Bridge Dam," and the other route to reach or terminate at the Croton Dam, and near, yet above, the terminus of the present aqueduct.

The resolution was adopted unanimously.

The COMMISSIONER OF PUBLIC WORKS thereupon stated that, in compliance with a similar request heretofore made, he had prepared such a report, with maps, plans and exhibits, as the above resolution called for; which report, maps, plans and exhibits were then, by request, submitted by him to the Aqueduct Commissioners.

On motion of Commissioner SPENCER, the report, with the accompanying maps, plans and exhibits, were accepted, and the Secretary was directed to have 250 copies of the report printed for the use of the Commissioners and for public distribution.

Commissioner DOWD then offered the following resolution:

Resolved, That the Commissioner of Public Works be and he is hereby requested to furnish, as early as practicable, for the information of the Aqueduct Commissioners, plans and estimates for the construction of a wooden flume from Croton Lake, over the line of the present aqueduct, of the dimensions of about 4 by 4 feet, or of such other dimensions as will deliver thirty millions of gallons of water per day, to furnish, temporarily, an increased supply of water to the City of New York; said plans and estimates to be based upon such data as may now be at command of the Department of Public Works.

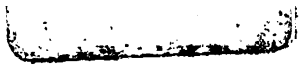
The resolution was adopted unanimously.

On motion of Commissioner THOMPSON, it was unanimously

Resolved, That when this meeting adjourn, it be adjourned until Wednesday next, August 15, 1883, at 3 o'clock P. M., to meet at the office of the Mayor.

There being no further business before the Commissioners, on motion of Commissioner LANE the meeting then adjourned.

JAMES W. McCULLOH,
Secretary.



MINUTES

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S. Church, be fixed at the rate of six thousand dollars per annum.

On motion of Commissioner DOWD, it was unanimously ordered that the salary of the Messenger, John R. Vernam, be fixed at the rate of eight hundred dollars per annum.

On motion of Commissioner DOWD, it was unanimously ordered that Mr. William A. Donnell be employed to serve as the Stenographer of the Commissioners at the public hearings.

S. HASTINGS GRANT,
Acting Secretary.

On motion of the MAYOR, the Commissioners then resumed the open session; and on motion of Commissioner DOWD, the Commissioners adjourned to meet at the office of the Commissioners, 78 Tribune Building, on Wednesday next, August 22, 1883, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at the Office of the Commissioners, 78 Tribune Building, in the City of New York, on Wednesday, August 22, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioner GEORGE W. LANE.
Commissioner WILLIAM DOWD.
Commissioner JAMES C. SPENCER absent from the city.

A letter was presented by the MAYOR, from Benjamin S. Church, Esq., accepting the appointment of Chief Engineer of the Aqueduct Commissioners, and was ordered to be placed on file.

On motion of Commissioner DOWD, the Secretary was directed to procure the necessary stationery required for present use in the office of the Commissioners.

On motion of Commissioner THOMPSON, the Secretary was directed to prepare, in consultation with the Counsel to the Corporation, a proper form of notice and request, from the Aqueduct Commissioners to the Comptroller for the issuance, from time to time, of New York City bonds for such sums of money as may be required for the expenditures of the said Commissioners; such form to be submitted to the Commissioners at their next meeting.

A communication was read from the Secretary, in relation to the purchase of a typewriting machine, and the employment of a typewriter; which,

On motion of Commissioner DOWD, was laid over until the next meeting.

A letter was received and read, from Commissioner Spencer, approving all of the proceedings of his associate Commissioners at their meeting held on the 15th inst., and was ordered to be placed on file.

On motion of the MAYOR, the Commissioner of Public Works was requested to prepare, as early as practicable, a profile showing the surface line over the proposed New Aqueduct, the depth of the tunnel beneath said surface line and the location and depth of the working shafts; to accompany the map of that part of the proposed New Aqueduct between the Harlem and the Pocantico Rivers.

On motion of Commissioner LANE, the meeting then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their rooms, 78 Tribune Building, August 23, 1883, pursuant to the resolution of August 15th inst., and the public notice annexed hereto, to give full opportunity for a hearing to all parties interested in that part of the proposed New Aqueduct comprised in the section between the Harlem and the Pocantico Rivers.

Said public notice is as follows:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, August 16, 1883.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested, that full opportunity will be afforded them to be heard in relation to that part of the plan or plans, of the proposed New Aqueduct, consisting of the section lying between the Harlem River and the Pocantico River; such hearing to be at the Office of the Commissioners, Room 78, Tribune Build-

ing, in the City of New York, on Thursday, August 23, 1883, at 2 o'clock P. M.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioner GEORGE W. LANE.
Commissioner WILLIAM DOWD.

The Mayor stated the object of the meeting, which was numerously attended, and invited all who desired to present their views or objections in relation to the plans proposed for the afore-named part of the New Aqueduct.

The Mayor also stated that Chief Engineer Newton, of the Department of Public Works, and Chief Engineer Church, of the Aqueduct Commissioners, were present to answer any questions or make any explanations called for by those present.

In response to the invitation from the Mayor, Robert Sewell, Esq., of counsel of several landowners of land near Tarrytown, and in his own behalf as owner of lands in that vicinity, presented objections to the location and construction of the Aqueduct through such lands; which objections were recorded in full by the official stenographer of the Commissioners.

Messrs. Orlando B. Potter and Hugh N. Camp also appeared before the Commissioners; not to oppose, but to

advocate the construction of an Aqueduct of larger dimensions—say fifteen feet diameter—than the one proposed by the Commissioner of Public Works; both of them favoring the construction of a conduit that would provide for future supply of water from sources north of the Croton; and their remarks were recorded in full by the official stenographer of the Commissioners.

A letter was presented by the Mayor from Moses Devoe, Esq., protesting against the construction of the tunnel under his lands, near Fordham Heights, which letter was read, and ordered to be placed on file.

No other persons present desiring to be heard, the Commissioners then adjourned the public hearing until Monday, August 27th, at 3 o'clock P. M., at the office of the Commissioners.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED SPECIAL MEETING

FOR A PUBLIC HEARING, HELD IN THE OFFICE OF THE

AQUEDUCT COMMISSIONERS,

78 Tribune Building, August 27, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioner LANE.
Commissioner DOWD.

In response to an invitation from the Mayor, William S. Dunn, Esq., a property owner near Fordham Heights, stated his objections to the present grade line of the proposed Aqueduct Tunnel, and requested that, if practicable, it be so depressed as to avoid all disturbance of the surface upon the lands of the Dickerson estate—which he represents—of his own lands, and those of H. B. Claflin, Esq., near Fordham Heights; and stating that he was authorized to say that in that event the right of way for the Aqueduct through those lands—a distance of over 8,000 feet—would be given to the City of New York for a nomi-

nal consideration. His remarks were recorded in full by the official stenographer of the Commissioners.

On motion of the MAYOR, it was unanimously

Resolved, That Chief Engineer Newton, of the Department of Public Works, and Chief Engineer Church, of the Commissioners, be and they are hereby requested to investigate and report upon the practicability of lowering the grade line of the Aqueduct sufficiently to accomplish the object desired by Mr. William S. Dunn; together with their estimate of the additional expense which such an alteration of the plans for the New Aqueduct would entail.

Several persons present made inquiries concerning certain parcels of land affected by the proposed plans for the Aqueduct; but none others desiring to be heard by the Commissioners, the public hearing was then adjourned *sine die*, pending the report of the Chief Engineers, as above requested.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, 78 Tribune Building, in the City of New York, August 29, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioner WILLIAM DOWD.
Commissioner GEORGE W. LANE.
Commissioner JAMES C. SPENCER.

George P. Andrews, Esq., Counsel to the Corporation, and Chief Engineer Newton, of the Department of Public Works, and Chief Engineer Church, of the Aqueduct Commissioners, were also present.

The minutes of the last stated meeting of the Commissioners were read and approved.

The minutes of the special meetings of the Commis-

sioners on the 23d and 27th inst. were also read and approved.

Commissioner DOWD, Chairman of the Committee on Rooms and Offices, reported progress.

The Secretary, as required by the resolution of August 22d (page 11), submitted a form of notice and request to the Comptroller to raise the necessary funds for the Aqueduct Commissioners' expenditures, with the approval of the Counsel to the Corporation endorsed thereon; which form was approved by the Commissioners, and ordered to be entered upon these minutes, as follows :

Whereas, In the estimation of the Aqueduct Commissioners the sum of dollars will be required to defray the necessary and lawful current expenditures of said Commissioners during the present year; now, therefore, be it

Resolved, That the Comptroller of the City of New York be and he is hereby requested to raise the said sum of dollars, upon bonds of the City of New York, in conformity with the requirements of Section 32, Chapter 490, Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said chapter and section of said laws.

—which form bears the following endorsement :

Approved as to form :

GEORGE P. ANDREWS,
Counsel to the Corporation.
August 27, 1883.

Chief Engineer Newton reported progress in running the new interior lines for the Aqueduct from Croton Dam, stating that two surveying parties were at work in the field, under the direction of Mr. John Mechan, late of the United States Coast Survey, and a most skillful topographical Engineer.

The Commissioners urged all possible dispatch in the work; and Chief Engineer Church assured them that there should be no delay which could possibly be avoided; and stated that he thought sufficient data would be obtained, within a very few days, to enable the Engineers to determine—and report to the Commissioners at their next meeting—whether it was practicable to construct the New Aqueduct from Croton Lake upon an interior line.

Chief Engineer Newton also gave assurance that the work should be done as rapidly as was compatible with accuracy and thoroughness.

The Secretary submitted an "Order of Business" to be observed at the stated meetings of the Commissioners, which was discussed, and for which a substitute was offered by Commissioner LANE. The substitute was adopted, and ordered to be placed upon these minutes, as follows:

At all regular meetings of the Aqueduct Commissioners the order of business shall be:

1st. Reading the minutes.

2d. Reports of Special Committees.

3d. Reports from the Secretary, Chief Engineer and Auditor.

4th. Communications to the Board shall be received and considered.

5th. Unfinished business.

6th. New business.

Communications from the following persons were read, and ordered to be placed on file:

From C. L. Cammann, Esq., executor of Sarah B. Cammann, deceased, protesting against the construction of the Aqueduct across the lands of said estate (at about Station 1304+50 on the map) upon the plans now under consideration.

From H. L. Douglass, Esq., of Tarrytown, also protesting against the construction of the Aqueduct across his lands, near the Pocantico River (at about Station 425 on the map).

Communications were received from the following persons, and referred to the Commissioner of Public Works, being upon subjects pertaining to that Department, and not to this Commission; from

J. W. Ledyard, concerning his plan for increasing the water supply through the present Aqueduct.

From "The National Ice Company" of New York, concerning the water of the Bronx River.

Applications for appointment in the office of the Commissioners were received from several persons, and ordered to be placed on file for future consideration.

There being no further business before the Commissioners, the Mayor invited any one of the persons pre-

sent who desired to be heard upon the plans for the New Aqueduct to come forward and address the Commissioners.

In response thereto, Fordham Morris, Esq., as counsel for Mr. Cammann, the executor above-named, appeared and explained fully, and in detail, the damage to the lands of the afore-named Cammann estate, which it was believed would be inflicted by the construction of the New Aqueduct upon the plans now under consideration; and requested the Commissioners to have maps made for him by the Engineer, showing exactly the condition in which the property would be after the Aqueduct was constructed.

He further stated that whilst he was not now prepared to express a decided opinion upon the constitutionality of the law under which the Commissioners are acting, he nevertheless had grave doubts upon the subject, and he characterized the law as "unexampled in its severity in the taking of private property, and giving to the Commissioners a power beyond what the Czar of Russia dare exercise in dealing with his people," and of the exercise of which power he "would have serious apprehensions were it not for the high opinion he entertained of the character of the gentlemen composing this Commission."

In reply to several inquiries, the Commissioner of Public Works made explanations in relation to the line proposed by him for the New Aqueduct, and stated that said line was, scientifically, the best that could be found, and was therefore adopted by his engineers, without regard to its effect upon the property owners; and he also believed that it would prove to be the cheapest line for

constructing the New Aqueduct; yet, as the power to make any modifications which in their judgment were required was vested in the Commissioners, it was for them to determine what, if any, changes were necessary to protect private rights, as far as possible.

No one else appearing, the Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, 78 Tribune Building, on Wednesday, September 5, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioner WILLIAM DOWD.
Commissioner GEORGE W. LANE.
Commissioner JAMES C. SPENCER.
Chief Engineer NEWTON and *Chief Engineer* CHURCH were also present.

The minutes of the stated meeting of August 29th, ulto., were read and approved.

The following communications were received, read, and ordered to be placed on file, viz.:

From Charles L. Cammann, executor, &c., by Fordham Morris, Esq., of counsel, "by way of supplemental

objection and remonstrance to the plan and route of the proposed Aqueduct through the lands of the estate of Sarah B. Cammann, deceased, at Fordham," and making requests for certain maps and plans, and the opportunity to examine the engineers under oath.

From Messrs. Morris & Steele, as attorneys for Mrs. Virginia C. Montgomery, executrix and trustee of Romanzo W. Montgomery, deceased, and as attorneys for Lewis G. Morris, Esq., both protesting against the construction of the New Aqueduct "on either of the alternate lines" through their respective lands on Fordham Heights.

The official notices of the action of the Board of Estimate and Apportionment of August 24, 1883, fixing the salaries of Commissioners Spencer, Lane and Dowd at $8,000 each per annum, and approving the salaries fixed by the Aqueduct Commissioners for the Secretary and Messenger of the Commissioners, were received and ordered to be placed on file.

Applications for positions in the Engineer Corps were received from Messrs. P. P. Buckelew and Henry M. Patterson, and were referred to Chief Engineer Church.

Chief Engineer Church reported progress in running the interior lines for the proposed New Aqueduct, and stated that sufficient data had been obtained to show that it was feasible to construct the New Aqueduct on an interior line of about 14,000 feet greater length than the Hudson River line; that the average depth of the working shafts on said interior line would be less than on the river line; and that there would be less embankment and

more rock tunnel on the interior line, which would also avoid two stream crossings which the river line would have—one near Sing Sing and the other the Pocantico; and that he would probably be able to make his full report upon the new line at the next meeting of the Commissioners.

The COMMISSIONER OF PUBLIC WORKS stated that, in submitting his report and plans to the Aqueduct Commissioners, his main object had been to direct their attention to what he considered the cardinal points to be considered and determined by them, and not to go further into detail of plans, etc., than was essential to a proper comprehension of the subject, and of such cardinal points he deemed most material:

1st. The construction of the proposed Quaker Bridge Dam and Reservoir; and

2d. That the Aqueduct be as much in rock tunnel as possible.

Chief Engineer Newton stated that the surveys of the lands required for the new Croton Lake had all been made, and maps made showing the property lines of all, except a part upon the northerly side, which would be completed as soon as possible. He also stated that borings were being made to determine the best point and manner of crossing the Harlem River with the New Aqueduct.

On motion of Commissioner DOWD, it was unanimously

Resolved, That on Wednesday next, September 12th, at 2 o'clock P. M., the Aqueduct Commissioners will meet in their office, 78 Tribune Building, in the City of

New York, to consider the plans for the construction of the proposed dam, known as the Quaker Bridge Dam, upon the Croton River, and to give public hearing to all persons interested therein and in property to be affected thereby; and the Secretary is hereby directed to give public notice of such hearing, in conformity with the requirements of Section 2, Chapter 490, Laws of 1883.

And be it also

Resolved, That the State Board of Health be and they are hereby invited and requested to attend said meeting; to examine said plans; hear the statements of the Commissioner of Public Works, of the Chief Engineers and of others in relation thereto; to the end that said Board may determine what, if any, sanitary regulations should be prescribed by them, in conformity with the requirements of Section 35, Chapter 490, Laws of 1883, of the State of New York.

There being no further business before the Commissioners, they adjourned to meet, as above stated, at 2 o'clock P. M., on Wednesday, September 12th.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, September 12, 1883, at 2 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners GEORGE W. LANE, JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineers* NEWTON and CHURCH.

And in response to the invitation and request of the Aqueduct Commissioners to the State Board of Health, the Hon. Erastus Brooks and Elisha Harris, M. D., of that Board, were present, together with a large number of persons interested in the proposed Quaker Dam and Reservoir.

The MAYOR stated that the Commissioners would proceed with the hearing, of which public notice had been

given, in relation to the construction of the proposed "Quaker Bridge" Dam, and he requested Chief Engineer Church to explain to those present the map then on exhibition showing the Croton watershed, proposed location of the "Quaker Bridge" Dam, etc. The explanation of Chief Engineer Church and his answers to numerous questions from O. B. Potter, Esq., and others, were fully recorded by the official stenographer.

The Hon. O. B. Potter and the Hon. Wm. H. Arnoux, Hon. Erastus Brooks and Elisha Harris, M. D., of the State Board of Health, were heard by the Commissioners, and their statements fully recorded by the stenographer.

No other persons present desiring to be heard, the Commissioners then proceeded with the regular order of business.

The COMMISSIONER OF PUBLIC WORKS presented a report supplementary to his report of August 8, 1883, and submitting the proposition of building a dam at Muscoot Mountain, on the Croton River, to be known as the "Muscoot Dam."

The report was accepted, and on motion of Commissioner THOMPSON it was ordered that 250 copies thereof be printed for the use of the Commissioners, and for public distribution.

Communications were received from the following persons, and were ordered to be placed on file:

From G. Hart, Esq., Tarrytown, making suggestions as to the route and construction of the proposed New Aqueduct.

From Messrs. Morris & Steele, attorneys for Gulian L. Dashwood, Esq., protesting against the construction of a new aqueduct through his lands at Fordham Heights.

A letter received from Elisha Harris, M. D., Secretary of the State Board of Health, suggesting that the Aqueduct Commissioners propound written questions to the said Board in relation to the sanitary aspects of the proposed new dams upon the Croton River, was referred to the Commissioner of Public Works with the request that he prepare such questions.

There being no further business before the Commissioners, they then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, September 19, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners WILLIAM DOWD, GEORGE W. LANE, and JAMES C. SPENCER.
Also *Chief Engineers* NEWTON and CHURCH.

Minutes of last stated meeting were read and approved.

Chief Engineers Church and Newton reported, verbally, upon the new interior lines for the proposed Aqueduct which have been run, and produced tracings thereof, and maps.

Chief Engineer Newton stated that the engineers who had formerly examined and approved the Hudson River line, proposed by the Commissioner of Public Works, had

been invited to examine and give their opinion regarding the new interior line, and that Messrs. Robert K. Martin, Julius W. Adams and George S. Greene had responded and would make their examination on the following day.

Chief Engineer Church produced a tracing showing an interior line from Station 1209+50 on Cooper's line (on lands of Dickerson estate), and running thence southerly and east of the present Croton Aqueduct; and by which interior line the valuable lands on Fordham Heights would be avoided. The line was explained to Messrs. Claflin and Dunn (then present), owners of lands to be affected by said line of Aqueduct; and then its further consideration was postponed.

A communication was received from the Commissioner of Public Works containing questions to be asked of the State Board of Health, which were read and discussed by the Aqueduct Commissioners; and

On motion of Commissioner THOMPSON, the Secretary was directed to forward the questions to the Secretary of said Board at Albany.

A communication was received from W. Jeffreys, Esq., relating to the extinguishment of fire by the use of steam, which was referred to the Fire Department.

There being no further business before the Commissioners, they then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, September 26, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Commissioner of Public Works, H. O. THOMPSON, absent from the city.

The minutes of the last stated meeting were read and approved.

The COMPTROLLER (referring to a statement of the expenditures of the Aqueduct Commissioners up to the 1st of October, and an estimate of the probable amount required up to the 31st of December next) desired the Commissioners to make a formal request upon him, as Comp-

troller, to raise the sum of fifty thousand dollars on bonds of the City of New York, and presented the following form of request:

Whereas, In the estimation of the Aqueduct Commissioners, the sum of fifty thousand dollars will be required to defray the necessary and lawful current expenditures of said Commissioners during the present year; now, therefore, be it

Resolved, That the Comptroller of the City of New York be and he is hereby requested to raise the said sum of fifty thousand dollars upon bonds of the City of New York in conformity with the requirements of Section 32, Chapter 490, Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said chapter and section of said laws.

Upon motion of the MAYOR, this resolution was passed unanimously.

The COMPTROLLER then presented a bill from the American Diamond Rock Boring Company for supplies, tools and running drills for making the soundings for locating the New Aqueduct across the Harlem River. The said bill, amounting to $993.75, had been presented to the Commissioner of Public Works, but the Comptroller desired the opinion of the Commissioners whether the said bill was not a proper charge against the Aqueduct Commissioners' expenditures.

The matter was discussed, and, on motion of the MAYOR, was referred to a committee composed of Messrs. Spencer, Dowd and Lane for consideration, consultation with the

Counsel to the Corporation, and report whether said expenditure was chargeable to the Aqueduct Commissioners.

Commissioner DOWD presented a recommendation of Mr. Clarkson, Civil Engineer, which was ordered to be placed on file with his application.

A communication was received from W. Willock, Croton Landing, recommending a plan for protecting the margins of Croton Lake; which was referred to the Chief Engineer.

On motion of Commmissioner SPENCER, the Commissioners then went into Executive Session.

The Executive Meeting was then adjourned until Friday, 28th inst., at 3 o'clock P. M., to continue the hearing of the Consulting Engineers.

The open meeting was then resumed, and the stated meeting adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, September 26, 1883.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

IN EXECUTIVE SESSION. A communication was presented from the Department of Public Works, transmitting the following documents relating to a new aqueduct along what is known as the Saw Mill River line.

1st. Letter of instruction from the Commissioner of Public Works to Isaac Newton, Chief Engineer of the Croton Aqueduct.

2d. Letter of Chief Engineer to Consulting Engineers.

3d. Letter of the Chief Engineer to the Commissioner of Public Works transmitting the report of the Consulting Engineers.

4th. Report of the Consulting Engineers, Mr. James B. Francis, General G. S. Greene, Colonel J. W. Adams and Mr. Robert K. Martin.

The documents were read by the Commissioners, and the Secretary instructed to prepare copies of the same for the use of the Commissioners.

Of the Consulting Engineers Messrs. Martin, Adams and Greene were present, together with Chief Engineers Church and Newton.

Messrs. Martin and Greene made verbal statements relating to the above-named line for the New Aqueduct; and replied to many questions relating thereto from the Commissioners and Chief Engineer Church, all of which statements, questions and answers were fully recorded by the official stenographer of the Commissioners.

The regular session was then resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Friday, September 28, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners GEORGE W. LANE and WILLIAM DOWD.
Commissioner of Public Works and *Commissioner* SPENCER absent from the city.

Chief Engineers Church and Newton, and Consulting Engineers George S. Greene and James B. Francis were also present.

The object of the meeting was to hear the further statements and opinions of Messrs. Greene and Adams, regarding the Saw Mill River route for the New Aqueduct.

Upon request of the Mayor, Messrs. Greene and Adams expressed their views with regard to the subject at length,

and replied to many questions from the Aqueduct Commissioners and Chief Engineer Church, all of which was fully recorded by the official stenographer.

The special meeting then adjourned to meet at the office of the Mayor at 2 o'clock P. M., on Saturday, 29th inst.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at the Office of the Mayor, on Saturday, September 29, 1883, at 2 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners GEORGE W. LANE and WILLIAM DOWD.
The Commissioner of Public Works and *Commissioner* JAMES C. SPENCER absent from the city.

The advantages and disadvantages of both the Hudson River and Saw Mill River routes for the New Aqueduct were discussed; and Chief Engineer Church was instructed to prepare, as soon as practicable, estimates of the cost of constructing the Aqueduct upon each of the two routes, and to have said estimates ready, if possible, by the following Wednesday, October 3d.

The meeting then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Called by the Mayor, as President of the Commission, and held at his Office on Tuesday, October 2, 1883, at 10 o'clock A. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER and GEORGE W. LANE.
Also *Chief Engineer* CHURCH.

The Mayor stated that he had called the meeting for consultation as to the advisability of calling upon additional expert engineers to examine and give their opinion upon both of the proposed lines for the New Aqueduct; and especially to report upon the difficult points in constructing the Aqueduct upon the Saw Mill River line, which had been referred to by the Consulting Engineers, who lately examined that line at the request of the Department of Public Works; said difficult points being

chiefly the amount of water, and the danger of caving, to be contended with.

Chief Engineer Church suggested as Consulting Engineers, Messrs. Hamilton Smith, Jr., of California, now in this city; James D. Hague, of this city; and Joseph P. Davis, late City Engineer of Boston—all hydraulic engineers of high standing and large experience.

On motion of Commissioner SPENCER, seconded by Commissioner Thompson, Chief Engineer Church was authorized and instructed to request the above-named Consulting Engineers to make an examination and report upon the engineering merits and demerits of each of the proposed routes for the New Aqueduct.

Chief Engineer Church was also instructed to arrange with the Commissioner of Public Works for a subsequent conference of the above-named Consulting Engineers with the engineers who have already examined the routes upon request of the Commissioner of Public Works.

The meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, October 3, 1883, at 3 o'clock P. M.

Commissioners present:

The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and GEORGE W. LANE.
The Mayor and Comptroller absent, being detained by other public business.

Vice-President DOWD presided.

The minutes of the last stated meeting were read and approved.

A communication was received from Mr. Jay Gould; protesting against the construction of the New Aqueduct through his homestead lands, near Irvington, and requesting an opportunity to be heard, and to show why such a location of the Aqueduct should not be adopted; which communication was read, and ordered to be placed on file.

On motion of Commissioner THOMPSON, Chief Engineer Church was instructed to request General John Newton to attend the conference of Consulting Engineers to be held in accordance with the instructions of the Commissioners to Chief Engineer Church, at the special meeting of October 2d, inst.

The Commissioners then examined and certified vouchers for their expenditures up to October 1, 1883.

There being no further business, the meeting then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, October 10, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners WILLIAM DOWD, GEORGE W. LANE and JAMES C. SPENCER.
Also *Chief Engineers* NEWTON and CHURCH.

Commissioner SPENCER, Chairman of the Special Committee to which was referred the matter of the bill of the American Diamond Rock Boring Company, by resolution of September 26th ulto., presented the following report, which was accepted and ordered to be spread upon these minutes:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building.
NEW YORK, October 10, 1883.

To the Board of Aqueduct Commissioners:

The Committee appointed to consider and report on an account for labor and material in diamond drilling ex-

aminations on the Harlem River, near High Bridge, reports that the Committee met with the Counsel to the Corporation at his office on the 5th inst.; the account in question appeared to include items bearing date before and after the institution of this Commission, none of which had been ordered by this Board; and had been made out, and audited through the Department of Public Works, and payment claimed from the Comptroller under other statutes than Chapter 490, passed June 1, 1883; and your Committee was advised by the Counsel to the Corporation that, in his opinion, it was not a subject of payment under the last-named act, and was properly a subject of payment under the acts mentioned in the account; wherefore your Committee report against its payment by this Board.

JAMES C. SPENCER,
GEO. W. LANE,
WM. DOWD,
} *Committee.*

Upon motion of Commissioner DOWD, it was

Resolved, That the sum of fifteen hundred dollars be and the same is hereby appropriated for the following purposes, viz.: for drawing tables, instruments and materials, stationery, books and blanks for the office of the Chief Engineer, the sum of one thousand dollars; for stationery, account books and blanks for the office of the Commissioners the sum of five hundred dollars, subject to the approval, of the Board of Estimate and Apportionment, pursuant to Section 41, Chapter 490, Laws 1883.

And the Secretary was directed to communicate this action to the Board of Estimate and Apportionment for approval.

On motion of Commissioner LANE, the following resolution was passed unanimously:

Resolved, That the Comptroller be and he is hereby requested to inform the Aqueduct Commissioners, from time to time, of the sums of money raised by him, pursuant to the provisions of Section 32, Chapter 490, Laws of 1883, for the use and purposes of said Commissioners, and placed to the credit, in account, of the "Additional Water Fund."

A communication was received from Messrs. Williamson, Cooper and Satterlee, as a committee representing numerous property owners of Dobbs Ferry, protesting against the construction of the New Aqueduct upon the Hudson River route, and asking for a hearing; which was read and ordered placed on file, and the Secretary directed to give the parties notice of future public hearings.

A communication from William Willock, relating to a method of protecting the marginal banks of the new Croton Lake, was referred to Chief Engineer Church.

The COMMISSIONER OF PUBLIC WORKS then submitted the following documents relating to the Saw Mill River route for the New Aqueduct, viz.:

1st. Copy of letter from Chief Engineer Church to the Commissioner of Public Works, dated October 9, 1883, relating to his consultation with Messrs. Greene, Adams and Martin, and General John Newton, Consulting Engineer, upon the comparative merits of the Hudson River and the Saw Mill River routes for the New Aqueduct.

2d. Copy of opinion of Messrs. Greene, Adams and Martin, that the only proper site for a dam is at the Quaker Bridge, and approving the Hudson River route for the New Aqueduct.

Which were read and ordered placed on file.

Chief Engineer Church then presented a copy of a letter to him from General John Newton, giving his views upon the two routes for the New Aqueduct, and favoring the Hudson River line; which was read and ordered to be placed upon file.

On motion of Commissioner SPENCER, it was unanimously

Resolved, That a public hearing be given at this office, on Monday next, October 15th, at 2.30 P. M., in relation to that part of the plan or plans for the New Aqueduct upon the Hudson River line from a point near the Indian Brook, upon the lands now or late of Lucien F. Wheeler or Mary L. Doody, in the town of Ossining, in Westchester County, and running thence southerly to the Harlem River, and also as to the northern terminus of said New Aqueduct at a point near and above the present Croton Dam; said public hearing to be continued from time to time upon subsequent days until concluded.

And the Secretary is hereby directed to give public notice of said hearing by publication in the daily papers of the City of New York and in the County of Westchester.

On motion of Commissioner SPENCER, the Commission then went into Executive Session.

The open session was then resumed, and the stated meeting adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, October 10, 1883.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners WILLIAM DOWD, GEORGE W. LANE and JAMES C. SPENCER.

IN EXECUTIVE SESSION. It was, on motion of Commissioner LANE, seconded by Commissioner Thompson,

Resolved, That the Counsel to the Corporation be asked to state what legal formalities are necessary relating to the adoption and certification of maps previous to the final adoption of the plans.

And the Secretary was directed to submit the question to the Counsel to the Corporation.

The following was offered by the MAYOR:

Resolved, That the plan for the Aqueduct submitted by the Department of Public Works be and the same is hereby adopted by this Commission, from Indian Brook to the Harlem River, subject to such changes and modifications as the Commissioners are authorized by law to make after the public hearing has been had, as provided by Section 2, Chapter 490 of the Laws of 1883.

Which was unanimously adopted.

On motion of Commissioner DOWD, the following resolution was adopted:

Resolved; That it is the sense of this Commission that the northern terminus of the New Aqueduct should be at the present Croton Dam.

The vote being:

In the affirmative—The Mayor, the Comptroller, Commissioners Spencer, Lane and Dowd.
Negative—Commissioner of Public Works.

On motion of Commissioner DOWD, the following resolution was passed unanimously:

Resolved, That the Department of Public Works be requested to have the necessary surveys made to accomplish the above purpose.

The regular session was then resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Called by the Mayor, as President of the Commission, and held at his Office on Saturday, October 13, 1883, at 2.30 P. M., to confer with Mr. Hamilton Smith, Jr., Civil Engineer, of California.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners WILLIAM DOWD, GEORGE W. LANE and JAMES C. SPENCER.
Commissioner of Public Works absent from the city.

By request of the Mayor, Mr. Smith gave the Commissioners his views with regard to the building of the new aqueduct upon the Hudson River line and upon the Saw Mill River line, based upon information obtained by him from Chief Engineers Church and Newton.

His remarks were briefed by the Secretary—to be fully

written out thereafter—and the meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—Mr. Smith's statements were subsequently written out in full—submitted to and approved by Mr. Smith—and filed with the reports of the Consulting Engineers.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, for public hearing, on Monday, October 15, 1883, at 2.30 P. M., pursuant to resolution of the Commissioners of October 10th inst., and of the public notice hereto annexed.

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, October 11, 1883.

To all whom it may concern:

In conformity with the requirements of Section 2, Chap. 490, Laws of 1883 of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard:

FIRST.—In relation to that part or section of the plan or plans for the construction of a new aqueduct upon the route known as the "Hudson River line," commencing at a point upon the lands now or late of Lucien F. Wheeler, or Mary L. Doody (and easterly of lands of Hon. O. B.

Potter, above Sing Sing), in the town of Ossining, Westchester County, New York, and running thence southerly along said "Hudson River line"—as shown upon plans now in this office—to the Harlem River.

SECOND.—As to the northern terminus of said new aqueduct at a point near and above the present Croton Dam, said public hearing to be at the office of the Aqueduct Commissioners, Room 78, Tribune Building, in the City of New York, on Monday, October 15, 1883, at 2.30 o'clock P. M., and upon such subsequent days and times thereafter to which said hearing may be adjourned until completed.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

Commissioners present:
The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* CHURCH and NEWTON.

A large number of persons were also present who are interested in property upon the Hudson River line of the proposed new aqueduct.

All the proceedings were fully recorded by the official stenographer of the Commission.

The Mayor explained at length the object af the meeting and invited those present who desired to be heard or to

make inquiries regarding the proposed aqueduct to address the Commissioners.

Messrs. Edward S. Jaffray, Dr. John C. Barron and Walter S. Gurnee, owners of land near Irvington, appeared in their own behalf; and Messrs. David B. Williamson, Edward R. Satterlee and John B. Cooper, owners of lands near Dobbs Ferry, appeared in their own behalf and as members of a committee representing a number of property owners in that vicinity, whose protest is on file with the Commissioners—all of them protesting against the Hudson River line, and advocating the Saw Mill River Valley as the proper route for the new aqueduct.

Mr. O. B. Potter also appeared and gave his views on the subject.

Mr. John Townshend (93 Nassau street) appeared as counsel for James G. Bennett, owner of lands near South Yonkers and Fordham. He was not prepared to take a stand for or against the new aqueduct, but wished for information, and a notice of the hearing to be had prior to the final adoption of the plans.

Mr. James B. Haines, Nos. 8 and 9 Mills Building, was present to represent some property owners upon the Hudson River line, but was not prepared to address the Commissioners.

No others appearing, the public hearing was then adjourned until Tuesday, October 16th, at 2.30 P. M., and the Commissioners went into Executive Session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Monday, October 15, 1883.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The matter of additional surveys and examinations of the Saw Mill River route was fully discussed, and in view of the earnest request of the owners of property to be affected by the construction of the new aqueduct upon the Hudson River route, it was determined to call for additional examinations and surveys. A form of resolution to that effect was drawn, but laid over for action at the next meeting.

The session then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, for public hearing, on Tuesday, October 16, 1883, at 2.30 P. M., pursuant to adjournment from 15th inst.

Commissioners present:

The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
The *Mayor* and *Commissioner of Public Works* absent on other public business.

Vice-President DOWD presided.

Mr. Alfred I. Taylor, of 257 Broadway, appeared as counsel for the estate of Loring Andrews, stating the condition of the estate (see page 260 of stenographic record), and asking for a future opportunity to be heard.

Mr. Charles I. Gould, husband of Mrs. Anna Gould, the

owner of lands near Tarrytown, appeared, but made no serious objections.

No one else appearing, the hearing was then adjourned until the regular meeting of Wednesday, October 17th, at 2.30 P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78, Tribune Building, on Wednesday October 17, 1883, at 2.30 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The Mayor announced that in pursuance of the adjournment of the public hearing of the 15th inst., to this time and place, the Commissioners would now proceed with said hearing; the Commissioners being ready to listen to any one present who desired to be heard.

Mr. Cyrus W. Field appeared and stated that he wished informally to protest against the construction of an aqueduct on the proposed Hudson River line, as it would, in his opinion, seriously impair the value of his property on Broadway, near Irvington. His remarks were fully reported by the official stenographer.

No one else appearing, the public hearing was, upon motion of Commissioner SPENCER, adjourned until Monday next, October 22d, at 3 o'clock P.M.

The regular order of business was taken up at 3 o'clock P. M.

On motion of Commissioner DOWD, the reading of the minutes of the last stated meeting was suspended until the next stated meeting.

The following communication was received from the Comptroller and ordered to be placed on file and spread upon the minutes:

CITY OF NEW YORK—FINANCE DEPARTMENT,
COMPTROLLER'S OFFICE, October 13, 1883.

JAMES W. MCCULLOH, Esq.,
Secretary, Aqueduct Commissioners:

Dear Sir,—I am in receipt of your communication of the 11th inst., transmitting resolutions adopted by the Aqueduct Commissioners, requesting the Comptroller to inform them of the sums of money raised by him pursuant to the provisions of Section 32 of Chapter 490, Laws of 1883, for the use and purposes of said Commissioners, and placed to the credit of the account entitled "Additional Water Fund." The Comptroller received proposals for $50,000 "Additional Water Stock of the City of New York" on the 10th inst., under Section 34 of Chapter 490 of the Laws of 1883, and awarded the full amount of the stock to the highest bidder, at a premium of seven hundred and fifty dollars.

The principal sum of $50,000, with the premium $750, in all $50,750, was paid into the City Treasury on the

12th inst., and is subject to the requisitions of the Aqueduct Commissioners.

Respectfully,

S. HASTINGS GRANT,
Comptroller.

Commissioner SPENCER presented the following resolution:

AQUEDUCT COMMISSIONER'S OFFICE,
Room 78, Tribune Building,
NEW YORK, October 17, 1883.

Resolved, That the Commissioner of Public Works be and he is hereby requested to submit to the Aqueduct Commissioners as soon as practicable a plan or plans, together with maps, specifications, estimates and particulars for the completion of a route or line for the new aqueduct, from the reservoir in Central Park to the present Croton Dam, based upon the portion of said route or line already submitted by said Commissioner of Public Works from Indian Brook to Harlem River, and adopted by said Aqueduct Commissioners, subject to such changes and modifications as the said Commissioners are authorized by law to make after the public hearing has been had, as prescribed by Section 2, Chap. 490, of the Laws of 1883. The portions of said plans and routes herein called for may be specified as follows:

FIRST.—A route or line from the present Croton Dam to Indian Brook at a point upon the lands now or late of Lucien F. Wheeler, or Mary L. Doody (and easterly of lands of Hon. O. B. Potter above Sing

Sing), and in the town of Ossining, Westchester County, N. Y.

SECOND.—A plan or plans, and a route or line for the extension of said aqueduct from the southern terminus of said route or line heretofore submitted by said Commissioner of Public Works, to and across or under the Harlem River.

THIRD.—A plan or plans, and a route or line for the extension of said aqueduct from the Harlem River to the reservoir in Central Park.

Which was unanimously adopted and the Secretary directed to transmit a copy thereof to the Commissioner of Public Works.

On motion of Commissioner SPENCER, the Commission then went into Executive Session.

The open session was then resumed and the stated meeting adjourned, to be resumed for a public hearing on Monday next, October 22d, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78, Tribune Building, on Wednesday, October 17, 1883.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

IN EXECUTIVE SESSION. Chief Engineer Church submitted the following request and recommendation:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, October 14, 1883.

Hon. Aqueduct Commissioners:

Gentlemen,—I am much in need of an assistant and draughtsman to make calculations, maps, etc. I would

recommend that Mr. H. S. Craven be appointed temporarily to perform the above-mentioned duties.

Very respectfully,

(Signed) B. S. CHURCH,
Chief Eng.

Upon motion of Commissioner DOWD, Mr. Henry S. Craven was appointed temporarily to perform the duties named by Chief Engineer Church, at a salary of one hundred and twenty-five dollars per month.

On motion of Commissioner DOWD, Chief Engineer Church was authorized to request Engineers Hamilton Smith, Jr., and Herman Schussler to make, with him, an examination of each of the proposed lines for the new aqueduct on the Hudson River and the Saw Mill River routes, the expense of such examinations to be defrayed by this Commission.

The following resolution was offered by the MAYOR:

Resolved, That in view of the earnest request of the owners of property to be affected by the construction of the new aqueduct upon the Hudson River line, the Commissioner of Public Works be and he is hereby requested to make and report as soon as practicable such further surveys and examinations of the Saw Mill River route as may be necessary to enable this Commission to determine the best line upon which a new aqueduct can be constructed over said route.

Which was unanimously adopted.

And the Secretary was instructed to have copy made

and when signed by the President of the Board, to transmit the same to the Commissioner of Public Works.

The MAYOR also offered the following resolution, which was unanimously adopted:

Resolved, That the Commissioner of Public Works be and he is herpby requested to cause the before-mentioned surveys and examinations to be made under the general supervision of Mr. Church, Chief Engineer of the Aqueduct Commission.

Commissioner SPENCER then called up the matter of the purchase of a typewriting machine, and the employment of a stenographer, with a knowledge of typewriting, who shall write a good clerical hand. After discussion, the matter was, on motion of the MAYOR, referred to the Secretary, with power to procure a typewriting machine, at a cost not to exceed $100, and to select and report to the Commissioners a suitable person for the position above named, his compensation not to exceed $1,500 per annum.

The regular session was then resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, for Public Hearing, on Monday, October 22, 1883, at 3 o'clock P. M., pursuant to adjournment from the stated meeting of October 17th.

Commissioners present:

The Comptroller.

Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The *Mayor* and *Commissioner of Public Works* absent on public business.

Vice-President DOWD presided.

Mr. Fordham Morris appeared as counsel for sundry protesting property owners near Fordham Heights, and addressed the Commissioners at length; and wishing to examine Engineers Church and Newton under oath, these gentlemen were duly sworn by Commissioner Dowd, and their testimony fully recorded by the official stenographer.

The testimony of Engineer Newton was not completed, and was deferred until the next hearing.

No other person appearing, the hearing was then adjourned until Tuesday, 23d inst., at 3 o'clock P. M., and the Commissioners adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at the Office of the Mayor, October 23, 1883, at 10 o'clock A. M.

Present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* CHURCH and NEWTON.

The Mayor stated the object of the meeting to be a hearing of the result of the examinations of the proposed lines for the new aqueduct upon the Hudson River and upon the Saw Mill River lines, made by Engineers Hamilton Smith, Jr., and Herman Schussler (then present); and at his request those gentlemen made detailed statements regarding the two routes, which statements were fully recorded by the official stenographer.

After hearing these gentlemen, it was, on motion of Commissioner DOWD,

Resolved, That the Commissioner of Public Works be and he is hereby requested to make, as soon as possible, the necessary surveys and plans for modifying the line of the new aqueduct according to the suggestions made by Engineers Hamilton Smith, Jr., and Herman Schussler, from about the tangent point between Stations 370 and 380 upon the Hudson River line southeasterly to a point easterly of Tarrytown Heights, upon the Saw Mill River route, for the purpose of avoiding, as far as practicable, injury to valuable property upon the former line; the aforesaid surveys and plans to indicate the location of the portals and working shafts upon such amended line.

On motion of Commissioner LANE, it was unanimously

Resolved, That the thanks of the Commission be tendered to Mr. Herman Schussler, C. E., of California, for his valuable information and suggestions regarding the route and construction of the new aqueduct; and that the Mayor be requested to convey the same to him.

The meeting then adjourned to 8 P. M. this day.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, October 23, 1883, at 3 o'clock P. M., for public hearing, pursuant to adjournment from October 22d.

Present:

The Comptroller.

Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

Vice-President DOWD presided.

Mr. Fordham Morris resumed his examination of Chief Engineer Newton, which was recorded by the official stenographer.

Mr. O. B. Potter then addressed the Commissioners, and advocated the construction of an aqueduct of not less than 15 feet internal diameter, and his remarks were recorded by the stenographer.

No other person appearing, the hearing was then adjourned until Wednesday, October 24th, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, October 24, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* NEWTON and CHURCH.

The meeting was opened for public hearing, pursuant to notice of October 11th, and adjournment from October 23d.

Mr. James E. Serrell was the only person who appeared. His remarks were recorded by the official stenographer.

By verbal request of Mr. Horace Andrews, property owner of Tarrytown, his protest against the proposed route of the new aqueduct through his lands was ordered to be noted upon the record.

The Commissioners then entered upon the regular order of business.

The minutes of the stated meetings of October 10th and 17th were read and approved.

Chief Engineers Newton and Church reported progress in making the various surveys called for by the Commission.

The Secretary presented a communication from H. S. Craven, Esq., C. E., dated October 18, 1883, accepting the appointment of Assistant Engineer in the office of Chief Engineer Church; which was read and ordered to be placed on file.

The Commissioners then went into Executive Session, and, upon resuming the open session, the public hearing was adjourned until Wednesday next, October 31st, at 3 o'clock P. M.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 24, 1883.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

IN EXECUTIVE SESSION. All the Commissioners being present, the minutes of the executive meetings of October 10th and 17th were read and approved.

A communication was received from Chief Engineer Church recommending the purchase of two Diamond drill machines and engines; which was referred to Commissioner Spencer, to consult with the Counsel to the Corporation, and report upon the power of the Commissioners to incur the necessary expenditure for such implements; and Chief Engineer Church was directed to ascertain and report to the Commissioners, at their next

meeting, the cost of said machinery, the terms upon which it could be purchased, and where it would be delivered.

The matter of the construction of the Quaker Dam and the Muscoot Dam was then taken up and fully discussed; and,

On motion of Commissioner LANE, seconded by Commissioner Thompson, it was

Resolved, That the plans submitted by the Commissioner of Public Works for the construction of the dam known as the " Quaker Bridge Dam," and also of the dam known as the " Muscoot Dam, " be and the same are hereby adopted by this Commission, subject to such changes and modifications as the Commissioners are authorized by law to make, after the public hearing has been had, as provided by Section 2, Chapter 490 of the Laws of 1883.

Which was carried by the following vote :

Affirmative—The Mayor, the Comptroller, the Commissioner of Public Works, Commissioners Dowd and. Lane.

Negative—Commissioner Spencer.

The regular session was then resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, October 31, 1883, at 3 olock P. M.

Commissioners present:

Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and GEORGE W. LANE.
Absent—The *Mayor* and the *Comptroller*, they being engaged with the Board of Estimate and Apportionment.
Chief Engineers CHURCH and NEWTON were also present.

Vice-President DOWD presided, and opened the meeting for public hearing, pursuant to adjournment of October 23d instant.

Mr. Alexander Hamilton, property owner near Dobbs Ferry, appeared and stated his objections to the construction of the new aqueduct through his lands upon the Hudson River line, and learning from the Commissioners that surveys were being made with the view of obtaining a more easterly line, and so avoiding the valuable river front-

age, he stated that in that event he was disposed to give the city a right of way through his lands, if the aqueduct was located on the easterly slope of the dividing ridge between the Hudson and the Saw Mill River Valley, and requested notice when the route was finally decided upon; reserving his right to then make such objections as he might deem necessary. His statements were fully recorded by the official stenographer.

No one else appearing, the public hearing was then adjourned until Wednesday next, November 7th, at 3 o'clock P. M.

The regular business was then taken up.

The Secretary presented a communication from the Commissioner of Public Works, enclosing a copy of a letter of Consulting Engineer James B. Francis, concurring in the opinions of Engineers Greene, Adams and Martin of October 9, 1883, which was read and ordered to be placed on file with those opinions.

Chief Engineers Church and Newton reported progress in the various surveys being made upon the request of the Commissioners.

The Secretary reported the purchase of a typewriting machine at a cost of $90, and the selection of Mr. George Lucas, in accordance with the instructions of the Commissioners of October 17th inst.

Whereupon, on motion of Commissioner THOMPSON, it was unanimously

Resolved, That Mr. George Lucas be and he is hereby appointed stenographer, typewriting and engrossing clerk in the office of the Aqueduct Commissioners, and of their Secretary and Chief Engineer, at a salary of fifteen hundred dollars per annum, subject to the approval of the Board of Estimate and Apportionment of the City of New York, pursuant to Section 41, Chapter 490, Laws of 1883.

The Secretary presented a communication from the Counsel to the Corporation, in reply to questions of the Commissioners of October 5th inst., which was laid over for future consideration in Executive Session. (See Ex. Ses. Min. Nov. 7th.)

The meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, November 7, 1883, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioners WILLIAM DOWD, GEORGE W. LANE and JAMES C. SPENCER.
Chief Engineers CHURCH and NEWTON were also present.

Vice-President DOWD presided, and opened the meeting for public hearing pursuant to adjournment from October 31st ultimo.

A committee from the Taxpayers' Central Association appeared, and were heard through their Chairman, Mr. Charles I. Schampain, whose address was fully recorded by the official stenographer, and a manuscript communication, delivered by the committee, was, on motion of Commissioner DOWD, referred to the Commissioner of Public Works as properly belonging to his Department.

No one else appearing, the public hearings were then adjourned until further notice.

The Mayor and the Commissioner of Public Works being then present, the regular order of business was then taken up.

The minutes of the last stated meeting were read and approved.

A communication from Fordham Morris, Esq., dated October 31, 1883, was read and ordered to be placed on file, and the Secretary directed to give Mr. Morris notice of future public hearings.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session, and, upon resuming the open session, adjourned until Wednesday, November 14, 1883, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 7, 1883.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

A communication was received from the Counsel to the Corporation, in reply to questions of the Commissioners (of October 5, 1883), in relation to the time when the Commissioners can commence work upon lands taken subject to appraisal, and upon lands taken by agreement with the owners, which communication was read and ordered to be placed upon file.

Engineers Church and Newton then produced tracings of additional surveys on the several routes for the new aqueduct, which were discussed, and verbal instructions given to the engineers for further and more detailed

information concerning certain portions of a modified line from the Croton to the Harlem River.

Chief Engineer Church submitted an estimate of the maximum delivery, in United States gallons, per day, of circular aqueducts on a grade of nine inches per mile, viz.:

13	feet	diameter,	288,000,000	gallons	delivery.
14	"	"	350,000,000	"	"
15	"	"	419,000,000	"	"

Which was ordered placed on file.

On motion of Commissioner THOMPSON, Chief Engineers Newton and Church were requested to make and report to the Aqueduct Commissioners an estimate of the cost, per lineal foot, of an aqueduct of the dimensions respectively of thirteen (13), fourteen (14), and fifteen (15) feet internal diameter—the conduit being in rock tunnel.

On motion of Commissioner SPENCER, it was unanimously

Resolved, That the Commissioner of Public Works be and he is hereby requested to have an alignment map made, showing the property division lines upon the proposed new or modified route for the aqueduct, in the same manner as was done upon the map of the former Hudson River line, in order to permit said new route to be submitted, at public hearings, to all persons interested therein.

The Commissioners then resumed open session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, November 14, 1883, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

Vice-President DOWD presided.

The minutes of the stated meeting of November 7th were read and approved.

The Secretary reported the receipt of a communication from Mr. Fordham Morris, dated November 9, 1883, relating to estimates of the cost of the new aqueduct; and stated that a copy had been forwarded to Chief Engineer Newton, of the Department of Public Works, with a request for the information desired by Mr. Morris.

Chief Engineers Church and Newton reported good pro-
ing the surveys of the Saw Mill River route,

and the modified lines heretofore called for, and which are nearing completion.

The Mayor and Commissioner of Public Works being then present, the Commissioners, on motion of Commissioner LANE, went into Executive Session; and upon resuming the open session, adjourned until Wednesday, November 21, 1883, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 14, 1883.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The minutes of the Executive Session of November 7th were read and approved.

A communication was received from the Counsel to the Corporation, in reply to the resolution of the Commissioners of October 10th, in relation to the legal formalities necessary prior to the final adoption of plans, which was read and ordered to be placed on file; and the Secretary was directed to have copies made and sent to each of the Commissioners.

Chief Engineer Church presented a communication relative to the purchase of horses and wagons for the use of Engineer's Department, which was read and ordered to be placed on file; and on motion of Commissioner SPENCER, it was

Resolved, That Chief Engineer Church be and he is hereby authorized to purchase for the use of the Engineer's Department one wagon; one buggy; one double and one single set of harness; three horses; also blankets and other necessary equipment (as requested in his communication of this date), at a sum not exceeding twelve hundred dollars ($1,200).

A bill was presented from the official stenographer, Mr. W. A. Donnell, for his services from August 23d to November 7th, amounting to $242.50, and the Secretary was directed to cousult with Commissioner Thompson as to the correctness of the price charged and report to the Commissioners at their next meeting.

After conference with the Engineers with reference to the different surveys now in progress, the Executive Session was adjourned and the open session resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 21, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* CHURCH and NEWTON.

The minutes of the last stated meeting were read and approved.

The Secretary presented a communication received from Robert Sewell, E. J. Blake, Charles J. Gould, John H. Hall, M. H. Bright, William H. Webb, and many others, property owners in the villages of North Tarrytown and Tarrytown, remonstrating against the construction of the new aqueduct upon the Hudson River line, which communication was read and ordered to be placed on file.

Chief Engineers Church and Newton reported, in response to the request of the Commissioners of November 7th, the relative cost of an aqueduct of twelve, thirteen, fourteen and fifteen feet internal diameter, which report was received and laid over for future consideration.

On motion of Commissioner LANE, the Commissioners then went into Executive Session; and upon resuming the open session, adjourned until Friday, 23d inst., at 2 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday November 21, 1883.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

Engineers Church and Newton presented maps of the modified route for the new aqueduct from Quaker Bridge to South Yonkers, which were explained by the Engineers and fully discussed by the Commissioners, after which, upon motion of the MAYOR, it was

Resolved, That the plans and maps submitted to the Aqueduct Commissioners by the Commissioner of Public Works for the construction of a new aqueduct upon the line known as the "Hudson River Route," and by this Commission heretofore submitted at public

hearings, be and the same is hereby modified in accordance with the plans this day submitted by the Commissioner of Public Works—in response to the request of the Commissioners of November 7th inst. —for the construction of the aqueduct upon a modified line, commencing at a point near the proposed site of the "Quaker Bridge Dam," and running thence southerly to the point of intersection of said modified line with the aforesaid "Hudson River Route," near South Yonkers.

Which motion was carried by the following vote:

In the affirmative—The Mayor, the Comptroller, the Commissioner of Public Works, Commissioners Lane and Dowd.

In the negative—Commissioner Spencer.

On motion of Commissioner DOWD, it was

Resolved, That a public hearing be given on Friday next, the 23d inst., at 2 o'clock P.M., to all persons interested in the above-described modified line for the new Aqueduct, and that the Secretary give public notice of the same by publication in the daily papers of New York and the county papers of Westchester County.

On motion of Commissioner DOWD the Secretary was directed to submit to the Counsel to the Corporation the question "whether the Aqueduct Commissioners can legally submit, at public hearings, alternative plans for the new Aqueduct, said plans having a starting point and a portion of their line in common, but diverging to differ-

ent termini," and to report his answer to the Commissioners.

On motion of Commissioner DOWD, the Secretary was authorized to close the office of the Commissioners on Evacuation Day, the 26th inst.

The Commissioners then resumed the open session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their office, No. 78 Tribune Building, Friday, November 23, 1883, at 2 o'clock P.M., for public hearing, pursuant to resolution of November 21, 1883, and the following public notice:

"AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building.
NEW YORK, November 21, 1883.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plan or plans for the construction of a dam upon the Croton River, known as the "Quaker Bridge Dam," and also for the construction of a new aqueduct commencing at a point near the proposed site of the said "Quaker Bridge Dam," and running thence southerly to the Harlem River, the proposed route of said aqueduct being a modification of the line heretofore known as the "Hudson River Route," and diverging therefrom above the village of Sing Sing, in the town of Ossining, in Westchester County, and running thence

southeasterly into and across the valley of the Pocantico River; thence southeasterly into the Saw Mill River Valley, near the town of Dublin; thence southerly along said Saw Mill River Valley to a point near South Yonkers, and there intersecting the line of the Hudson River Route, and thence following the same to the Harlem River; as shown upon maps and profiles now in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78, Tribune Building, in the City of New York, on Friday, November 23, 1883, at 2 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned until concluded.

By order of the Aqueduct Commissioners,

JAMES W. McCULLOH,
Secretary."

Present:
The Mayor.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

Mr. Adolph Le Moyne, property owner on the modified route, near North Yonkers, appeared, and stated his objections to the route; but declared that where it would cross his lands, if the Aqueduct is constructed as now proposed, he should not make any opposition.

No one else appearing, the hearing was adjourned until Saturday, November 24th, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, November 24, 1883, at 3 o'clock P. M., for public hearing, pursuant to adjournment of November 23d.

Present:
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Mr. Fordham Morris appeared and submitted an additional protest on behalf of certain property owners at Fordham Heights, which was fully recorded by the official stenographer.

Mr. Lewis G. Morris, owner of land at Fordham Heights, also appeared; to urge the depression of the conduit grade much beneath the grade formerly proposed, across his lands; and to advise that further examination and surveys be made, to ascertain whether a better line for crossing the Harlem River cannot be obtained at a point further north than the one proposed near and above High

Bridge, which point Chief Engineer Church arranged to examine in company with Mr. Morris.

No one else appearing, the hearing was adjourned until Tuesday next, November 27th, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their office, No. 78 Tribune Building, Tuesday, November 27, 1883, at 3 o'clock P. M., for public hearing, pursuant to adjournment of November 24th.

Present:
The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The following owners of property upon the modified line under consideration appeared, viz.: Messrs. William H. Webb, Benjamin Odell and Orlando B. Potter. The statements of Messrs. Webb and Potter were recorded by the official stenographer.

Mr. Odell declined to make any statement for the present, deferring his objections until a subsequent hearing.

Mr. William H. Arnoux appeared to second the views of Mr. Potter, and also to call the attention of the Commissioners to the great wastage of the present supply of

croton water, and his remarks were also fully recorded by the stenographer.

Mr. George W. Parsons, owner of property near Tarrytown, had also appeared pursuant to the public notice, but being informed of the proposed manner of constructing the aqueduct across his lands, had no objections to interpose at present; and retired without a hearing.

No one else appearing, the hearing was then adjourned until the 28th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 28th, 1883, at 3 o'clock P. M.

Commissioners Present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* CHURCH and NEWTON.

The meeting was opened for public hearing, pursuant to adjournment from 27th instant.

The only person who appeared was Mr. Benjamin Odell, but he was not yet prepared to ask a hearing.

The hearing was then adjourned until Monday, December 3d, at 3 o'clock P. M., and the regular order of business taken up.

The minutes of the Stated Meeting of 21st inst. were read and approved.

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In response to the resolution of the Commissioners of October 17th (in Stated Meeting), Chief Engineer Newton of the Department of Public Works submitted a plan for the construction of the new Aqueduct, from a point near and above the present Croton Dam, along the line of the Indian Brook Valley, and thence to the point of intersection with the modified line from Quaker Bridge Dam, to the Saw Mill River Valley, on the lands from the estate of Koop, at Maurice avenue, near the village of Sing Sing; which was received and laid over for consideration in Executive Session.

On motion of Commissioner LANE the Commissioners then went into Executive Session, and upon resuming the open session adjourned, to meet for public hearing on Monday, December 3d, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

[eld at their Office, No. 78 Tribune Building, Wednesday, November 28th, 1883.

Commissioners present:

he Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The minutes of the Executive Session of 14th and 21st are read and approved.

The Secretary presented a communication from the Counsel to the Corporation, dated November 27th, 1883, in response to the enquiry of the Commissioners of the 23d st., in relation to the submission at public hearings of alternative plans for the new Aqueduct; which communication was read, and ordered placed on file, and spread upon these minutes, as follows:

In response to the resolution of the Commissioners of October 17th (in Stated Meeting), Chief Engineer Newton of the Department of Public Works submitted a plan for the construction of the new Aqueduct, from a point near and above the present Croton Dam, along the line of the Indian Brook Valley, and thence to the point of intersection with the modified line from Quaker Bridge Dam, to the Saw Mill River Valley, on the lands from the estate of Koop, at Maurice avenue, near the village of Sing Sing; which was received and laid over for consideration in Executive Session.

On motion of Commissioner LANE the Commissioners then went into Executive Session, and upon resuming the open session adjourned, to meet for public hearing on Monday, December 3d, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 28th, 1883.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The minutes of the Executive Session of 14th and 21st were read and approved.

The Secretary presented a communication from the Counsel to the Corporation, dated November 27th, 1883, in response to the enquiry of the Commissioners of the 23d inst., in relation to the submission at public hearings of alternative plans for the new Aqueduct; which communication was read, and ordered placed on file, and spread upon these minutes, as follows:

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Monday, December 3, 1883, for public hearing, in pursuance of the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building.

NEW YORK, Nov. 30, 1883.

To all whom it may concern :

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested, that full opportunity will be afforded them to be heard in relation to the plan or plans for the construction of a dam upon the Croton River known as the "Quaker Bridge Dam," and for the construction of a new aqueduct, commencing at a point near the proposed site of the said Quaker Bridge Dam," and running thence southerly to the Harlem River; the proposed route of said aqueduct being a modification of the line heretofore known as the "Hudson River Route," and diverging therefrom above the village of Sing Sing, in the town of Ossining, in Westchester County, and running thence southeasterly into and across the valley of the Pocantico

River; thence southeasterly into the Saw Mill River valley, near the town of Dublin; thence southerly along said Saw Mill River Valley to a point near South Yonkers, and there intersecting the line of the Hudson River Route, and thence following the same to the Harlem River; also in relation to a plan proposed for constructing the said new aqueduct from a point near and above the present Croton Dam, instead of from the "Quaker Bridge Dam," and running thence southwesterly along the line of Indian Brook, and southerly to a point of intersection with the above described modified route upon the lands of the estate of Koop, at Maurice avenue, near the village of Sing Sing, and thence following said modified route southerly to the Harlem River; all the above plans being shown upon maps and profiles now in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78 Tribune Building, in the City of New York, on Monday, December 3, 1883, at 3 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned, until concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

Commissioners present:
The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER and GEORGE W. LANE.

No person present desiring to be heard in relation to the modified route under consideration, the public hearing was

adjourned until Wednesday next, the 5th inst., at 3 o'clock P. M.

Upon the motion of Commissioner SPENCER, it was

Resolved, That the public hearing in relation to that part of the aforesaid modified route from the Harlem River, to and along the Saw Mill River Valley near Ashford Station, and thence northerly to the point of divergence of the proposed lines to the Quaker Bridge Dam, and to the Croton Dam, near Maurice avenue in Sing Sing, be closed at a meeting of the Commissioners to be held on Friday next, the 7th instant.

On motion of Commissioner LANE, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Monday, December 3, 1883.

Commissioners present:
The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER and GEORGE W. LANE.

The session was held for the purpose of a conference with regard to the work to be done by the Engineer Department in finally locating the line of the Aqueduct, which was discussed at length.

Upon the suggestion of the Mayor, he was requested to communicate with Hermann Schussler, Esq., Civil Engineer, San Francisco, Cal., to ascertain whether, and upon what terms, his services as Consulting Engineer, could be obtained.

The open session was then resumed and the Commissioners adjourned until Wednesday next, the 5th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, December 5th, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineers* CHURCH and NEWTON.

The meeting was opened for public hearing upon the modified route for the new Aqueduct, pursuant to the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building.

NEW YORK, Dec. 3, 1883.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York,

public notice is hereby given to all persons interested, that full opportunity will be afforded them to be heard in relation to the plan or plans for the construction of a dam upon the Croton River, known as "The Quaker Bridge Dam," and for the construction of a new aqueduct commencing at a point near the proposed site of the said "Quaker Bridge Dam," and running thence southerly to the Harlem River; the proposed route of said aqueduct being a modification of the line heretofore known as the "Hudson River Route," and diverging therefrom above the village of Sing Sing, in the town of Ossining, in Westchester County, and running thence southeasterly into and across the valley of the Pocantico River; thence southeasterly into the Saw Mill River Valley, near the town of Dublin; thence southerly along said Saw Mill River Valley to a point near South Yonkers, and there intersecting the line of the Hudson River Route, and thence following the same to the Harlem River; also in relation to a plan proposed for constructing the said new Aqueduct from a point near and above the present Croton Dam, instead of from "The Quaker Bridge Dam," and running thence southwesterly along the line of Indian Brook and southerly to a point of intersection with the above described modified route upon the land of the estate of Koop, at Maurice avenue near the village of Sing Sing, and thence following said modified route southerly to the Harlem River; all the above plans being shown upon maps and profiles now in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78, Tribune Building, in the City of New York, on Wednesday, December 5, 1883, at 3 o'clock P. M., and upon subsequent days and times there-

after to which said hearing may be adjourned, until concluded.

And the public hearing in relation to the plans for that part of the above described and modified route from the Harlem River to the above named point of intersection near Maurice avenue, at Sing Sing, will be closed at the meeting on Friday next, the 7th instant.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

A part of the Committee from the Tax Payers' Central Association appeared; but, in the absence of their chairman, did not wish to address the Commissioners; but requested the Secretary to state to the Commissioners that said Association, as now informed concerning the proposed route of the Aqueduct on the modified line—approved said route.

Mr. George Hart, property owner near Tarrytown, also appeared; but was not prepared to make any statement, at present.

On motion of Commissioner SPENCER, the public hearing was then adjourned until to-morrow, the 6th inst., at 3 o'clock P. M., and the regular order of business was taken up.

The minutes of the Stated Meeting of November 28th were read and approved.

The minutes of the Special Meeting of December 3d, were also read, and laid over for future consideration.

On motion of Commissioner DOWD, it was

Resolved, That when this Stated Meeting adjourns, it be to meet on Friday next, the 7th instant, at 3 o'clock P. M.

On motion of Commissioner LANE, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned until Friday next, the 7th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, December 5, 1883.

Commissioners present:

The Mayor.

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, GEORGE W. LANE, and WILLIAM DOWD.

Also GEORGE P. ANDREWS, Esq., *Counsel to the Corporation.*

The session was held for conference, and to consult with the Counsel to the Corporation in relation to the proper and legal course of procedure, for directing and making surveys, plans and maps, for the final location of the route for the new Aqueduct; which subject was fully discussed.

On motion of Commissioner SPENCER, it was

Resolved, That a Committee, composed of the Mayor, and Commissioner Dowd, be appointed to prepare a

proper form of resolutions for the making of a final location, and maps of the line of the new Aqueduct upon the modified Hudson River Route, between Sing Sing and the Harlem River, and to submit the same to the Commissioners at their meeting on Friday next, December 7th.

The open session was then resumed and the Commissioners adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Thursday, December 6, 1883, at 3 o'clock P. M., for public hearing.

Commissioners present:

Commissioners JAMES C. SPENCER, GEORGE W. LANE, and WILLIAM DOWD.

No one appeared for a hearing, and at 4 o'clock P. M. the Commissioners adjourned the hearing until to-morrow, the 7th instant, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office on Friday, December 7, 1883, at 3 o'clock P. M., pursuant to agreement of December 5th.

Commissioners present:

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The Mayor being detained by public business, Vice-President DOWD presided.

The meeting was opened for public hearing of property owners and others interested in the modified Hudson River route.

Messrs. George Hart and William H. Webb, owners of lands near Tarrytown, and Fordham Morris, attorney for several owners of lands at Fordham Heights, appeared, and their statements were fully recorded by the official stenographer.

Messrs. James E. Serrell and Charles I. Schampain, as

representatives of the Tax Payers Central Association, appeared, to oppose the Quaker Bridge Dam, and their remarks were also fully recorded by the stenographer.

No one else appearing,

It was, on motion of Commissioner SPENCER,

Resolved, That the public hearing in relation to that part of the modified Hudson River route from a point near Maurice avenue, at Sing Sing, to the Halem River, be now "closed," in pursuance of the public notice to that effect.

On motion of Commissioner SPENCER, it was

Resolved, That the public hearing in relation to other parts of said modified route be adjourned until further notice.

The regular order of business was then taken up, and the minutes of the Stated Meeting of December 5th were read and approved.

On motion of Commissioner LANE, the Commissioners then went into Executive Session; and upon resuming, the open session adjourned until Wednesday next, the 12th inst., at 3 o'clock P. M.

J. W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Friday, December 7, 1883.

Commissioners present:

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

Commissioner DOWD presented the report of the committee appointed on the 5th inst., to prepare a proper form for directing the making of the final location and maps of the new Aqueduct, on the modified Hudson River route. The report was read, and, upon motion of Commissioner THOMPSON, was accepted and approved.

On motion of Commissioner THOMPSON, Chief Engineer Church was authorized to consult with Joseph P. Davis, Civil Engineer, when desirable, in relation to the location and construction of the new Aqueduct, dams, &c.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, December 12, 1883, at 3 o'clock, P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.

The minutes of the Stated Meeting of December 7th inst. were read and approved.

Commissioner SPENCER called up the report of the committee appointed to prepare resolutions relative to the making of the final location and maps for the new Aqueduct from the Harlem River to Maurice Avenue, near Sing Sing, which report was presented to and approved by the Commissioners in Executive Session, on the 7th inst., and he then moved the adoption of the resolutions therein con-

tained, which motion was carried unanimously; and the Secretary directed to spread the resolutions on these minutes; and to transmit a copy thereof to the Commissioner of Public Works. The said resolutions are as follows:

"AQUEDUCT COMMISSIONERS' OFFICE,
ROOM 78 TRIBUNE BUILDING.

NEW YORK, December 7, 1883.

To the Aqueduct Commissioners:

Gentlemen,—The Committee appointed "to prepare a proper form of resolutions for directing the making of a final location and maps of the new Aqueduct, upon the modified "Hudson River Route," between Sing Sing and the Harlem River, beg leave to report for your consideration the following resolutions:

Resolved, That of the route for the New Aqueduct from the Quaker Bridge Dam to the Harlem River, as shown upon the plan submitted by the Commissioner of Public Works to the Commissioners on the 21st day of November, 1883, for the modification of the original route submitted to them by him on the 8th day of August, 1883, and known as The "Hudson River Route," this Commission hereby approves and adopts that part of said modified route which is particularly described as follows, to wit, from a point on the lands of the estate of Koop, and described on the maps of said modified route as station 234+50 (sheet No. 1); thence following said modified line, as laid down and described on said maps, southerly into and across the Pocantico Valley, and into and along the Saw Mill River Valley, to a place near South Yonkers, at

or about a point described on said maps as station 1050 (sheet 3), and there intersecting the line of the aforesaid "Hudson River Route," and thence following the same to the Harlem River; subject, however, to such modifications as these Commissioners may hereafter deem expedient, and as they are authorized by law to make.

Resolved, That the Commissioner of Public Works be, and he is hereby requested under the direction of these Commissioners, to prepare and submit to them, as soon as practicable, plans and maps for an exact line and location of the new Aqueduct upon the above-mentioned part of the modified "Hudson River Route;" indicating on said plans and maps the location of all shafts, drifts, adits, portals, sluices, culverts, canals, pumping works, bridges, tunnels, blow-offs, embankments, dumping grounds, approaches, roadways and other appurtenances necessary to the proper construction, maintenance and operation of the said Aqueduct.

And to the end that the Aqueduct Commissioners may be prepared to act intelligently in the premises, and to promptly adopt, modify or reject, in whole or in part, such plans and maps when the same are submitted to them, it is

Resolved, That the Commissioner of Public Works be, and he is hereby requested to have the aforesaid line and location made in consultation with, and with the concurrence of, the Chief Engineer of this Commis-

sion; and especially the location of the working shafts, portals, drifts, adits and other cardinal points which will influence and control the construction of said Aqueduct.

Respectfully submitted by

(Signed) FRANKLIN EDSON,
Mayor.
WILLIAM DOWD,
Committee."

The secretary presented a communication from the Counsel to the Corporation, dated December 4, 1883, relative to the instructions to be given to the engineers for making maps of the final location of the new Aqueduct, which was read and ordered to be placed on file and copy transmitted to Chief Engineer Church.

The secretary also presented a draft of instructions to be given to the Engineers for their guidance in making surveys and preparing maps for the final location of the aqueduct, in accordance with the requirements of the law, which was read and ordered to be engrossed and sent to the Chief Engineer of the Aqueduct Commissioners and the Chief Engineer of the Department of Public Works; and also entered upon these minutes as follows:

"AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building,
NEW YORK, December 12, 1883.

ISAAC NEWTON, Esq., *Chief Engineer,*
Department of Public Works; and
BENJAMIN S. CHURCH, Esq., *Chief Engineer*
Of the Aqueduct Commission.

Gentlemen:

For your information and guidance in making the surveys and maps called for in the resolutions passed by the Commissioners this day (of which copies are enclosed herewith), the Commissioners beg to call your attention to the following requirements of the law, and to matters which they deem important for their own information and future use, and for the proper prosecution of the construction work of the new aqueduct.

The law requires:

FIRST.—That the maps shall show all the real estate required for dams, reservoirs, aqueducts, and all the other adjuncts and appurtenances named in the resolutions of to-day.

To fulfill this requirement in relation to the aqueduct and its adjuncts and appurtenances, the Commissioners wish the maps to show a centre line for the Aqueduct, with outside bounding lines showing the width of land required on either side of the said centre line on the parcels hereinafter referred to; also the courses and distances of the said centre line, outside bounding lines, and of the property division lines of each parcel and the total area of each parcel. And to avoid any uncertainty as to the exact location of your centre line, and the consequent delays

that might be caused by the removal or destruction of temporary marks during the construction of the Aqueduct, the Commissioners request that permanent monuments, which cannot be readily disturbed or destroyed, should be placed upon your centre line, as soon as practicable.

SECOND.—That the maps shall plainly indicate what parcels of land are to be taken in fee, and over or through what parcels an easement or right to use, temporarily, or in perpetuity, is to be acquired.

To accomplish this purpose the Commissioners suggest that different tintings be used upon your maps to show those portions of land required to be taken in fee, those over or through which a temporary easement is required, and those over or through which an easement, in perpetuity, is to be acquired.

Your maps should show the lands of railways and public highways as well as of private owners.

THIRD.—That the natural and artificial division lines existing on the surface of the soil at the time of the survey shall be delineated upon the maps.

The natural and artificial lines referred to are roads, streams, fences, and other natural and artificial objects—especially those which mark the division lines between lands of adjoining owners. Dwellings, barns, outbuildings and other structures should also be shown and their character delineated by descriptive colorings.

FOURTH.—That the entire body of land contained within the outside bounding lines for the Aqueduct, reservoirs, dams, etc., etc., shall be divided into a number of contiguous parcels; which parcels shall be numbered continuously.

To comply with this requirement the Commissioners suggest that the numbering of these parcels of land should commence at the lower end of the line of the new Aqueduct, near the Harlem River, and proceed northward, and that each numbered parcel should comprise as far as practicable all the land required to be taken from each owner; and that the boundary lines between owners should be so tinted upon the maps as to conspicuously mark said boundary lines.

The Commissioners would also suggest that the numbers of each of the parcels should be distinctly marked upon some building, stone, tree or other permanent object on or near the lands to be acquired, and that the maps shall show upon what object and where located such number is placed.

The ownership of the parcels is not to be indicated upon your maps. But for the use of the Commissioners, in imparting information to owners at public hearings, or in dealing with them for their lands, the Commissioners request that you will as far as possible obtain the names of the owners of each parcel, and furnish the Commissioners with a schedule of the parcel numbers, and the owners theroof.

Beside the things to be delineated as above stated, there should also be depicted on the maps sufficient of the topography of the adjoining territory, with its roads, streams, houses and other prominent objects, to indicate the locality of the parcels included within the lines of the land required. The object sought to be accomplished thereby being to place upon the map such details that a person of ordinary intelligence may, from an examination of the map, locate the parcels and determine whether or

not any of them are a part of his own property. To what extent this adjoining topography should be thus depicted must of course vary with circumstances, and is to be determined by the good judgment of the engineer in charge.

FIFTH.—The law also requires that the legal proceedings to acquire the right to lands within the City and County of New York, shall be taken separately from those for the acquirement of lands in the County of Westchester.

It is therefore necessary that you should accurately ascertain and delineate upon your maps the boundary line between the City and County of New York and the County of Westchester, and that maps should be made separately for each of said counties. And as it may be of importance, the Commissioners request that your maps also show the boundary lines of the City of Yonkers.

In making your locations you will please bear in mind the advantage of locating your working shafts, drifts, etc., at points where they will be readily accessible for the transportation of the heavy machinery and materials to be used in constructing the Aqueduct, as well as for removing debris, and also that sufficient land be taken at the shafts, portals, etc., outside of that required permanently for the Aqueduct, to provide for roads, engine houses and other structures required for the contractors' use in the construction work of the Aqueduct.

Yours respectfully,

(Signed) FRANKLIN EDSON,
President of the
Aqueduct Commission.

A communication was received from the Clerk of the Board of Estimate and Apportionment, requesting a schedule of the names, designation and respective salaries of all persons in the office of the Aqueduct Commissioners, in compliance with the provisions of Section 203, Chapter 410, Laws of 1882, which schedule the Secretary was directed to prepare and transmit to said Board.

Remonstrances were received from a large number of property owners along the original line of the "Hudson River Route" proposed for the Aqueduct, which were ordered placed on file with those heretofore received.

On motion of Commissioner SPENCER, it was then

Resolved, That a public hearing be given on Wednesday next, the 19th inst., at 3 o'clock P. M., in relation to the plan or plans for the construction of the proposed dam and reservior upon the Croton River, near the "Quaker Bridge," and the dam known as the "Muscoot Dam," about six miles above the present "Croton Dam."

Also in relation to the northern terminus of the new Aqueduct, either at the "Quaker Bridge Dam" or at a point near the present Croton Dam.

Also in relation to the construction of the new Aqueduct, from whichever of said termini shall be selected, southerly to the point near Maurice avenue, at Sing Sing, where the proposed lines from said terminal points intersect.

And also in relation to the plans for the construction of the new Aqueduct from the Croton River to the Harlem River, and especially as to its dimensions and delivering capacity.

And the Secretary was directed to give public notice of said hearing.

The Commissioners then adjourned until Wednesday, the 19th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 19, 1883, at 3 o'clock P.M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE, and WILLIAM DOWD.
Also *Chief Engineer* CHURCH.

The meeting was opened for public hearing pursuant to following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building.
NEW YORK, December 13, 1883.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested, that full

opportunity will be afforded them to be heard in relation to the plan or plans for the construction of the proposed dam and reservoir upon the Croton River near the "Quaker Bridge," and the dam known as the "Muscoot Dam," about six miles above the present "Croton Dam."

Also in relation to the northern terminus of the new Aqueduct, either at the "Quaker Bridge Dam," or at a point near the present "Croton Dam."

Also in relation to the construction of the new Aqueduct from whichever of said termini shall be selected, southerly to the point near Maurice avenue, at Sing Sing, where the proposed lines from said terminal points intersect.

And also in relation to the plans for the construction of the New Aqueduct from the Croton River to the Harlem River; and especially as to its dimensions and delivering capacity.

Said public hearing to be at the office of the Aqueduct Commissoners, Room No. 78 Tribune Building, in the City of New York, on Wednesday, December 19, 1883, at 3 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned, until concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

In response to the announcement by the Mayor that the Commissioners were prepared to hear any one wishing to address them upon the matters contained in the aforesaid notice, the following gentlemen addressed them, viz.: Messrs. O. B. Potter, Edmund Driggs, Alvin P. Mann, Dexter A. Hawkins, and William H. Arnoux, and their

statements were recorded in full by the official stenographer.

Mr. John H. Sherwood and others were present but made no statements.

The hearing was then adjourned until 3 o'clock P. M., to-morrow, the 20th inst.

The regular business was, on motion of Commissioner DOWD, laid over until to-morrow, and the Stated Meeting adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, December 20, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineer* CHURCH.

The meeting was opened for continuance of the public hearing, commenced on the 19th inst.; and the following property owners and others interested, appeared and addressed the Commissioners, viz.: Messrs. O. B. Potter, Willis Blackstone, Theodore Weston, William H. Webb, Henry B. Renwick and William H. Arnoux, and their remarks were fully recorded by the official stenographer.

Chief Engineer Church replied to many questions, and made explanations regarding the proposed aqueduct and dams, the condition of the present Croton dam, aqueduct, etc.

Messrs. Alexander M. Ross, Dexter A. Hawkins, Jas. O'Friel and others were also present.

The public hearing was then adjourned until Saturday next, 22d inst., at 3 o'ccock P. M., and the regular order of business taken up.

The minutes of the Stated Meeting of December 12th, were read and approved.

A communication was received from Jas. O'Friel, Esq., relative to the use of "Adamantean Rock" cement, which was referred to Chief Engineer Church.

The Commissioners then adjourned the Stated Meeting until Saturday, the 22d inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Saturday, December 22, 1883, at 3 oclock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Consulting Engineer* J. W. ADAMS of the Department of Public Works.

The meeting was opened for continuance of public hearing, commenced on the 19th inst., and was largely attended.

The Commissioners were addressed by Messrs. James E. Serrell and Charles I. Schampain, of the Central Taxpayers' Association, and by O. B. Potter, Esq., at length.

Chief Engineer Church responded to many questions, from persons present, and gave some of the reasons in support of his recommendation to build the "Quaker

Bridge Dam," and of locating the northern terminus of the Aqueduct at the present Croton Dam.

All of the proceedings were fully recorded by the official stenographer.

The hearing was then adjourned until Wednesday next the 26th inst., at 3 o'clock P. M.

On motion of the COMPTROLLER, the regular order of business was laid over until the next Stated Meeting, and the Commissioners adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, New York, Wednesday, December 26, 1883, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS of the Department of Public Works.

The meeting was opened for public hearing pursuant to adjournment from 22d inst., and the following persons addressed the Commissioners:

Samuel Wier, Robert L. Darragh, William H. Arnoux, and O. B. Potter, and their remarks were fully recorded by the official stenographer.

The hearing was then adjourned until Friday, the 28th inst., at 3 o'clock P.M.

The regular order of business was then taken up.

The minutes of the Stated Meetings of the 19th and adjourned meetings of the 20th and 22d were read and approved.

Chief Engineer Church submitted the following statement of increase, cost and deliveries of aqueducts of the different dimensions named, which was read and ordered filed and spread upon these minutes, viz.:

"AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building.
NEW YORK, December 19, 1883.

Hon. Aqueduct Commissioners,

Gentlemen:

The following estimates are respectfully submitted of the increasing percentages of costs and deliveries of aqueducts of 13, 14 and 15 feet diameter over the cost and delivery of a 12-foot aqueduct.

Diameter of Conduit.	Per cent. Increase Delivery.	Per cent. increased cost when progressing, per month.		
		100 feet.	150 feet.	200 feet.
13 feet	23.6	6.29	7.8	13.2
14 feet	50.2	12.7	14.7	25.5
15 feet	79.8	18.847	23.3	40.

(Signed) B. S. CHURCH,
Chief Engineer."

Chief Engineer Church also submitted the following estimate of the cost of bridges and highways required to be built if the Quaker Dam is constructed, which was read and ordered filed and spread upon these minutes, viz.:

"CHIEF ENGINEER'S OFFICE,
AQUEDUCT COMMISSIONERS,
Room 109 Tribune Building,
NEW YORK, December 22, 1883.

The Honorable AQUEDUCT COMMISSIONERS.

Gentlemen:

In accordance with your directions I respectfully submit the following estimate of the cost of construction and maintenance of the bridges, and the cost of construction of the roads, should Quaker Dam be built.

Roads	$73,500
Timber and pile bridges	195,000
Bridges, railroad "iron"	56,000
"Wire" bridges	150,000
"Croton" bridge	75,000
"Pine" bridges	50,000
Total cost	$599,500
Maintenances, bridges, per annum	$52,600

Respectfully,

B. S. CHURCH,

(Signed) *Chief Engineer.*"

The Commissioners then adjourned until Friday, the 28th inst., at 3 o'clock P. M.

J. W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Friday, December 28, 1883, at 3 o'clock P. M.

Commissioners present:

Commisssioner of Public Works.
Commissioners JAMES C. SPENCER, GEORGE W. LANE and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

Vice-President DOWD presided.

The meeting was opened for public hearing, and Vice-President DOWD stated that in the absence of the Mayor and Comptroller, who were attending the meeting of the Board of Estimate and Apportionment, the Commissioners had decided to confine the hearing of the day to the questions of the northern terminus, and the dimen sions of the new Aqueduct—leaving the questions of the proposed dams, at Quaker Bridge and Muscoot Mountain, for future consideration.

Messrs. Robert L. Darragh, James E. Serrell, O. B. Potter, William H. Arnoux and others addressed the Commissioners, and at request of Commissioner Thompson, Consulting Engineer Adams, of the Department of Public Works, made explanations, and replied to many questions of those present—all of which was fully recorded by the official stenographer.

Messrs. William H. Webb, J. O'Friel, Civil Engineers Weston and McElroy, of the Brooklyn Water Works, and many others, were present, but did not ask a hearing.

Mr. J. L. Douglass presented a communication in relation to a method of increasing the supply of water through the present Croton Aqueduct, which was referred to Chief Engineer Church.

On motion of Commissioner SPENCER, it was resolved that the hearing in relation to the northern terminus of the new Aqueduct and its dimensions be closed at the meeting of the Commissioners, on Wednesday, January 2, 1884.

The public hearing was then adjourned until Wednesday next, January 2, 1884, at 3 o'clock P. M.

And the Commissioners adjourned.

J. W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 2, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH, *Consulting Engineer* ADAMS and many citizens.

The Mayor officially announced the death, on Sunday morning, of Commissioner GEORGE W. LANE.

Comptroller GRANT, with a few feeling remarks, then offered the following resolutions:

Resolved, That we deeply regret the sudden death, on the 30th of December last, of our associate Commissioner,

GEORGE W. LANE; and that as a tribute justly due to his many sterling qualities, the following record be made upon the Minutes of this Commission.

The well known honorable career of our late associate marked him as one eminently qualified for the high trust imposed upon the members of this Commission, to which he was called by the Legislature of this State.

Immediately upon his return from Europe in July last, he entered upon the discharge of his duties as one of this Commission with his characteristic energy and performed them—almost to the hour of death—with the fidelity and intelligence ever evinced in his conduct of public trusts.

Although associated with him, as fellow Commissioners for a few months only, the time was ample for his frankness and urbanity to win our confidence and esteem; and his singleness of purpose and sound judgment to command our greatest respect.

The loss of his co-operation and counsel at this important period of our labors, is not only deeply deplored by every member of this Commission, but is justly regarded as a public misfortune.

Resolved, That in token of our sincere sympathy, a transcript of this record be engrossed and signed by the Commissioners, and transmitted by the President to the bereaved family of our late associate.

The resolutions were seconded by Commissioner SPENCER, as expressive of the high appreciation and kindly regard which the Commissioners entertain for their late associate, and were adopted unanimously.

Commissioner DOWD moved that, as a mark of respect for the memory of Commissioner Lane, the public hearing appointed for this day be adjourned until to-morrow, the 3d inst., at 2 o'clock P. M., and that all regular business be suspended for the day, which motion was adopted unanimously.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Thursday, January 3, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

The meeting was opened for public hearing pursuant to adjournment from the 2d inst., and the Commissioners were addressed by Messrs. Wm. H. Arnoux, Robert L. Darragh, Wm. H. Webb, Samuel McElroy and others, and their remarks recorded by the official stenographer.

Papers were submitted by Messrs. Darragh, Webb and McElroy, and placed on file.

The MAYOR then stated that if no others present desired to be heard in relation to the terminus of the new Aqueduct and its dimensions, the hearing upon those matters would

now be closed. No one else appearing, the MAYOR then declared such hearing closed, and stated that the hearing in relation to the construction of the Quaker Bridge Dam and the dam at Muscoot Mountain would be deferred until Wednesday next, the 9th inst.

The regular order of business was then taken up.

The MAYOR announced the first business in order to be the election of President and Vice-President, pursuant to the By-Laws.

Whereupon, on motion of Commissioner THOMPSON, the MAYOR and Commissioner DOWD were unanimously re-elected President and Vice-President, respectively, for the ensuing year.

The minutes of the stated meeting of December 26th, the adjourned meeting of December 28th ultimo, and the stated meeting of January 2d inst., were then read and approved.

The Secretary presented an opinion from the Counsel to the Corporation dated January 2, 1884, in relation to the power of the surviving Commissioners to act on certain matters during the vacancy occasioned by the death of Commissioner LANE, which was read and ordered placed on file.

The Commissioners then, on motion of Commissioner SPENCER, went into executive session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Thursday, January 3, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

After consultation upon the matters now under consideration, the Commissioners resolved to meet at the office of the Mayor at 3 o'clock P. M., to-morrow the 4th instant, to consider, and if possible, then determine upon the size of the new Aqueduct, and its northern terminus; the meeting to be confined to the consideration of those questions.

The Executive session was then adjourned to the time and place above named.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at the Office of the Mayor, Friday, January 4, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Adams, Assistant Engineers Craven and Stevenson Towle.

For the information of the Commissioners, Mr. Towle, at the request of the Commissioner of Public Works, made a statement in relation to the former, and the present method of flushing the sewers of New York; and also as to the use of the Croton water in washing streets and gutters; and the effect of such washings upon the condition of the sewers.

The Commissioners then resumed the consideration of

the dimensions, and the northern terminus of the new Aqueduct; and heard the arguments of Chief Engineer Church and Consulting Engineer Adams, in relation thereto.

After full discussion and interchange of views upon both subjects, the size or dimension of the new Aqueduct was first taken up.

Commissioner THOMPSON moved "that the new Aqueduct be constructed with a conduit having an inside clear area equal to that of a circle of the internal diameter of fourteen feet."

Commissioner SPENCER moved as an amendment that "fifteen feet" be substituted for "fourteen feet."

Which amendment was lost by the following vote:

Affirmative—Commissioner Spencer and Commissioner Dowd.

Negative—The Mayor, Comptroller, and Commissioner of Public Works.

The original motion of Commissioner Thompson was then carried unanimously.

The Northern Terminus was next taken up.

Commissioner SPENCER moved that "the northern terminus of the new Aqueduct be at the present Croton Dam; which motion was seconded by Commissioner Dowd.

Upon the calling of the roll, Commissioner Thompson gave the reasons which had heretofore controlled his action

in favor of the terminus at the Quaker Bridge Dam; and also those reasons which he now deemed of sufficient weight to warrant his voting in harmony with his colleagues; and the vote in favor of the motion of Commissioner Spencer was unanimous.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 9, 1884, at 3 o'clock P. M.

Commissioner CHRISTOPHER C. BALDWIN, appointed by the Governor of the State to fill the vacancy caused by the death of Commissioner Lane, appeared and took the oath of office.

Commissioners then present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and CHRISTOPHER C. BALDWIN.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

The meeting was opened for the continuance of the public hearing in relation to the Quaker Bridge Dam and the Muscoot Dam.

The Commissioners were addressed by Messrs. Charles I. Schampain, Robert L. Darragh, Wm. H. Webb, Theo-

dore Weston and James E. Serrell, and their remarks were stenographically recorded.

Chief Engineer Church made a detailed statement in reply to questions from those present regarding the Quaker Bridge Dam and Reservoir, the mode of its construction, necessity, &c., &c.

The hearing was then adjourned until Monday next, January 14th, at 3 o'clock P. M.

The minutes of the Stated Meeting were read and approved.

Chief Engineer Church reported good progress in the various surveys now being made by the Department of Public Works for locating the line of the Aqueduct between the Harlem River and Maurice Avenue, at Sing Sing.

Commissioner SPENCER then offered the following resolutions, which were adopted by the affirmative vote of all of the Commissioners:

Whereas, The Aqueduct Commissioners, on the 17th of October, 1883, requested the Commissioner of Public Works to prepare and submit to them a plan for modifying the Hudson River Route of the new Aqueduct by commencing the said Aqueduct at the present Croton Dam and running thence along the valley of the Indian Brock, and southerly to a point near the village of Sing Sing; and in response to which request the said Commissioner of Public Works, through Chief Engineer Newton of the Department of Public Works, submitted to this Commission on the 28th of November, 1883, a plan for the construction of said

aqueduct from a point near and above the present Croton Dam, southerly along the valley of the Indian Brook, and to a point of intersection with the Modified Hudson River Route, near the village of Sing Sing. Now, therefore, be it

Resolved, That this Commission hereby approves and adopts the aforesaid plan for the construction of the new Aqueduct from the present Croton Dam to said point of intersection with the Modified Hudson River Route, near Sing Sing, and which is particularly described as follows: Commencing at a point near and above the present Croton Dam, upon lands belonging to the City of New York, and running thence southerly through the lands of the various owners named and described upon the map and plan furnished by said Commissioner of Public Works on said 28th of November, 1883, to a point of intersection with the Modified Hudson River Route, which point is described on said map as station 234 + 50 of said Modified Hudson River Route, and as station 351 of the line from Croton Lake, said point of intersection being situated upon the lands now or late of the estate of Koop at Maurice Avenue, and about 800 feet southerly of the point where the said avenue is crossed by the line of the said Aqueduct, southeasterly of the village of Sing Sing; and at which point of intersection that part of the route now adopted unites with the route heretofore adopted by this Commission as the line of the Aqueduct from said point of intersection to the Harlem River; the part of the said route for the new Aqueduct now adopted being subject, however, to such modifications as these Commissioners may hereafter

deem expedient and as they are authorized by law to make.

Resolved, That the Commissioner of Public Works be and he is hereby requested, under the direction of these Commissioners, to prepare and submit to them as soon as practicable, plans and maps for an exact line and location of the new Aqueduct upon the route now adopted as above described, indicating on said plans and maps the location of all shafts, drifts, adits, portals, sluices, culverts, canals, pumping works, bridges, tunnels, blow-offs, embankments, dumping grounds, approaches, roadways, and other appurtenances necessary to the proper construction, maintenance and operation of the said Aqueduct.

Resolved, That the Commissioner of Public Works be and he is hereby requested to have the aforesaid line and location made in consultation with, and with the concurrence of the Chief Engineer of this Commission, and especially the location of the working shafts, portals, drifts, adits, and other cardinal points which will influence and control the construction of said aqueduct.

Resolved, That the plan of the cross-section of the proposed new Aqueduct submitted to this Commission by the Commissioner of Public Works on the 8th of August, 1883, and described in his report of that date as Exhibit E, and showing an internal diameter of twelve feet for the conduit of said aqueduct, be and the same is hereby modified, in respect to said diameter, by increasing the same to fourteen feet, so that the said conduit shall have an inside clear area equal

to that of a circle of the internal diameter of fourteen feet; subject, however, to such modifications as these Commissioners may hereafter deem expedient and as they are authorized by law to make.

Resolved, That the Commissioner of Public Works be and he is hereby directed to prepare and submit to this Commission, as soon as practicable, a plan or plans for the construction of said aqueduct with a conduit of said increased dimensions; and showing such form for said aqueduct and conduit as to him may appear best in view of the method now contemplated for the construction of said aqueduct.

Commissioner SPENCER offered the following resolution, which was adopted unanimously:

Resolved, That the Chief Engineer of the Commission be and he is hereby instructed to submit a plan for the organization of the Engineer force required for the service of the Commission, and to inform this Commission what engineers, assistants, draughtsmen, or others, are now required in the work of the Engineer's department of this Commission, and he shall also designate the amount of compensation which, in his judgment, should be paid them respectively.

Commissioner DOWD offered the following resolution :

Resolved, That Chief Engineer Church be and he is hereby authorized to purchase for the use of this Commission two diamond rock drilling machines, with the boilers, engines and other necessary appurtenances thereto, for the use of the Engineer's Department of

this Commission, at a cost not exceeding five thousand dollars each; provided that, prior to the purchase of said machines, the opinion of the Counsel to the Corporation shall have been obtained affirming the legal power of this Commission to make such purchases under the provisions of the Act, Chap. 490, Laws of 1883.

Also, that said Chief Engineer be and he is hereby authorized to employ the mechanics and operatives, and to purchase from time to time the fuel, pipe, drills, bitts and other implements required for operating said machines.

The resolution was adopted unanimously.

The Secretary was instructed to confer with the Counsel to the Corporation, and to report to the Board to what extent, if any, the Civil Service Act (Chap. 354, Laws of 1883) of the State of New York applies to the engineers and employees of this Commission.

The Commissioners then adjourned until Monday, 14th inst., at 3 P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, Monday, January 14, 1884, at 3 o'clock P. M.

Commissioners present:

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

Vice-President Dowd presided, and opened the meeting for public hearing in relation to the Quaker Bridge Dam and Reservoir and the Muscoot Dam.

The Commissioners were addressed by Messrs. Joseph Benedict, John Jay, Robert L. Darragh, William H. Webb, Theodore Weston and James E. Serrell.

Chief Engineer Church gave explanations and replied to many questions relating to the construction of the pro-

posed Quaker Bridge Dam and the Muscoot Dam, and their storage capacity, sanitary effects, &c.

The proceedings were fully recorded by the official stenographer.

No one else appearing, the Commissioners adjourned the public hearing until Wednesday next, the 16th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 16, 1884, at 3 o'clock, P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

The meeting was opened for public hearing in relation to the proposed dams and reservoirs at the Quaker Bridge and Muscoot Mountain; and the Commissioners were addressed by Messrs. Wm. H. Webb, Theo. Weston, and Alex. M. Ross, whose remarks were recorded by the official stenographer.

Mr. Wm. H. Webb presented a written request for certain detailed information which,

On motion of Commissioner SPENCER, was referred to Chief Engineer Church for a reply.

No one else appearing, the hearing was adjourned for the day, and upon motion of Commissioner DOWD it was

Resolved, That the public hearing in relation to the construction of the proposed Dam and Reservoir at the Quaker Bridge, and the Dam at Muscoot Mountain, be continued on Saturday next the 19th inst., at 2 o'clock P. M.; and if then deemed necessary, on the following Monday and Tuesday; and that the said hearing be closed on Wednesday the 23d inst.; and that the Secretary shall give public notice to that effect.

The regular order of business was then taken up, and the minutes of the Stated Meeting of January 9th and Adjourned Meeting of January 14th, were read and approved.

In obedience to the directions of the Commissioners on the 9th instant, the Secretary made a written report of the opinion of the Counsel to the Corporation affirming the power of the Commissioners to purchase diamond rock drilling machines; which report was ordered to be placed on file.

Chief Engineer Church verbally reported progress of the various surveys, examinations, &c., now in progress to establish the final location of the line of the Aqueduct.

The Commissioners then went into Executive Session, and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office on Wednesday, January 16, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Executive Meetings of January 3d and 4th were read and approved.

Chief Engineer Church presented a communication asking authority to appoint certain assistants, draughtsmen, and clerks; which was read and laid over for consideration on Saturday next.

And the Secretary was directed to furnish immediately a copy thereof to each member of the Commission.

The open session was then resumed, and the Commissioners adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Saturday, January 19, 1884, at 2 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Assistant Engineer* CRAVEN.

The meeting was held for public hearing pursuant to the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building.
NEW YORK, January 17, 1884.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full

opportunity will be afforded them to be heard in relation to the plan or plans for the construction of the proposed dam and reservoir upon the Croton River near the "Quaker Bridge," and the dam known as the "Muscoot Dam," about six miles above the present "Croton Dam."

Said hearing to be at the office of the Aqueduct Commissioners' Room No. 78 Tribune Building, in the City of New York, on Saturday next, 19th inst., at 2 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned, until and including Wednesday, January 23, 1884, at 3 o'clock P. M., on which last named day said public hearing in relation to said dams and reservoirs will be closed.

By order of the Aqueduct Commissioners,

JAMES W. McCULLOH,
Secretary.

A number of citizens were present, and the Commissioners were addressed by Messrs. O. B. Potter, Joseph Benedict, William H. Arnoux, Alex. M. Ross, Robert L. Darragh, William H. Webb, Theodore Weston, Cornelius O'Reilly and Thos. L. Feitner; whose remarks were recorded by the official stenographer.

At the request of several persons present, the estimated quantities and probable cost of the different kind of work upon the proposed Quaker Bridge Dam, based upon the preliminary surveys of the Department of Public Works, were given by Chief Engineer Church, and copies thereof furnished to those who desired them.

The public hearing was then adjourned until 2 o'clock P. M., on Monday 21st. inst.

Chief Engineer Church stated that a temporary building was required at East Tarrytown for the safe-keeping of the tools and supplies for the rock drilling machines now at work there.

Whereupon, on motion of Commissioner SPENCER, it was

Resolved, That the Chief Engineer be and he is hereby authorized to have a movable tool and supply shed built for the above-named purpose, at a cost not to exceed $150.

The Commissioners then adjourned until Monday, 21st inst., at 2 o'clock P.M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, on Monday January 21, 1884, at 2 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. CALDWIN.
Also *Chief Engineer* CHURCH.

Vice-President DOWD presided, and opened the meeting for public hearing.

Messrs. O. B. Potter, Robert L. Darragh, Thos. L. Feitner, C. I. Schampain, William L. Strong, Joseph Benedict, and G. F. Hopkins were heard, and their remarks were fully recorded by the official stenographer.

The hearing was then adjourned until Wednesday next, 23d inst., at 3 o'clock P. M.

The communication of Chief Engineer Church of the 16th inst. relative to the partial organization of an engi-

neer corps for immediate work was considered; and upon motion of Commissioner BALDWIN, it was

Resolved, That the scheme of partial organization of the Engineer Department required for immediate service, submitted to the Commissioners by Chief Engineer Church on the 16th inst., is hereby approved; the respective compensations to be fixed hereafter; and that the Chief Engineer present to the Commissioners at their meeting, on Wednesday next, the names of persons qualified to perform the duties of the respective positions.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, January 23, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH.

Commissioner SPENCER, absent by reason of sickness.

After a conference of the Commissioners, the MAYOR announced that the public hearings in relation to the proposed dam and reservoir at the Quaker Bridge, and the dam at Muscoot Mountain, would be deferred until further notice.

The regular order of business was then taken up, and the minutes of the Stated Meeting of January 16th, and the adjourned meetings of January 19th and 21st, were read and approved.

A communication, dated January 19, 1884, received from Luther R. Marsh, Esq., President of the Commission to select and locate lands for Parks in the 23d and 24th Wards, in relation to the location of a reservoir within the boundaries of the proposed Van Cortlandt Park was read and laid over for future action.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session, and upon resuming the open session adjourned until Wednesday, January 30th, at 3 o'clock P. M.

JAMES W. McCULLOH.
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 23, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners WILLIAM DOWD and C. C. BALDWIN.

Commissioner SPENCER absent from illness.

The minutes of the Executive Session of January 16th were read and approved.

Chief Engineer Church presented the following communication:

"CHIEF ENGINEER'S OFFICE,
AQUEDUCT COMMISSION, Room 78 Tribune Building.
NEW YORK, Jany. 23, 1884.

Honorable Aqueduct Commissioners,

Present:

Gentlemen,—In compliance with your directions of the 21st inst., I submit to you, for appointment in the Engineer's Department, the names of the following persons, whose services are now necessary for the work of the Commission:

As Principal Assistant and Executive Engineer .....Alphonse Fteley.
Engineer of Construction.....Henry S. Craven.
Assistant Engineer of Construction .....Edward Wegmann, Jr.
Assistant Engineer of Construction .....Frederick W. Watkins.
Assistant Engineer in charge of Drafting Department..Frederick S. Cook.
Assistant Draughtsman.....Cæsar Leonhard.
Chief Clerk.....Henry M. Patterson.
Office Clerk and Messenger...Edward B. Bulkley.

Very respectfully,

(Signed) B. S. CHURCH,
Chief Engineer."

The duties appertaining to each of the above positions were explained by Chief Engineer Church, and the qualifications of the persons he names were stated by him.

The following appointments were then made by the unanimous vote of the Commissioners:

Alphonse Fteley, as "Principal Assistant and Executive Engineer," at a salary of.....$5,000 p. an.
Henry S. Craven, "Engineer of Construction," at a salary of..... 4,500 "
Edwârd Wegmann, Jr., "Assistant Engineer of Construction," at a salary of..... 2,400 "
Frederick W. Watkins, "Assistant Engineer of Construction," at a salary of..... 2,400 "
Frederick S. Cook, "Assistant Engineer in charge of the Drafting Department," at a salary of..... 2,400 "
Cæsar Leonhard, "Assistant Draughtsman," at a salary of..... 1,000 "
Henry M. Patterson, "Chief Clerk of the Engineer's Department," at a salary of..... 1,800 "

His appointment being subject to approval of the Board of Estimate and Apportionment, pursuant to Section 41, Chapter 490, Laws of 1883.

The employment of each of the above-named persons to continue during the pleasure of the Commissioners, and their salaries to run from the date of entrance upon the discharge of their respective duties.

The recommendation for the office of clerk and messenger was not approved, and no appointment made.

The MAYOR then offered the following resolution:

Resolved, That it is the sense of this Commission that the required increased storage of the water of the Croton River can best be provided for by the construction of the proposed dam at the Quaker Bridge, and that as an auxiliary dam, to meet any

sanitary requirements arising from the building of said Quaker Bridge Dam, the proposed dam at Muscoot Mountain should also be built.

And the Chief Engineer of this Commission is hereby directed to make such surveys, examinations, and detailed working plans, specifications and estimates, as will enable this Commission to act intelligently in finally determining upon the construction of said dams.

The resolution was fully discussed and adopted, with the proviso that it be called up at the next meeting of the Commissioners to afford Commissioner Spencer the opportunity to record such vote as he may wish to cast upon the subject, the vote being in the affirmative, The Mayor, The Comptroller, The Commissioner of Public Works, Commissioner Dowd and Commissioner Baldwin.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

The above minutes are recorded as amended in the meeting of January 30, 1884, and then approved.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 30, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH, and *Consulting Engineer* ADAMS of Department Public Works.

The minutes of the Stated Meeting of January 23d were read and approved.

The COMMISSIONER OF PUBLIC WORKS submitted, informally, plans, specifications, and estimates for the construction of the proposed Quaker Bridge Dam, which were explained to the Commissioners, and to the audience present, by Consulting Engineer Adams of the Department of Public Works. The Commissioner of Public Works stated

that he would present a formal report to accompany said plans, specifications and estimates; whereupon,

On motion of Commissioner SPENCER, it was

Resolved, That said plans, specifications and estimates, with an accompanying report, be received and placed on file; and that 250 copies of the report be printed for the use of the Commissioners, and for public distribution.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned.

JAS. W. McCULLOH,
Secretary.

Exhibit "F"—Elevation and plan of Dam (Q. B.).
" "G"—Section of Dam (Q. B.).
" "H"—Section of elevation of Cornice and Parapet Wall.
" "I"—Relief Openings, or Arches.
" "K"—Section of Foundation.
" "L"—Specifications for building Quaker Bridge Dam, and controlling the flow of the Croton River, while excavating foundation.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, January 30, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD, and C. C. BALDWIN.

The minutes of the Executive Session of January 23d were read, amended and then approved.

On motion of Commissioner BALDWIN, Commissioners Spencer and Dowd were appointed a Committee, with power, to procure additional offices for the use of the Commissioners and the Engineer Department, and to purchase such furniture and supplies as may from time to time be required in said offices.

Chief Engineer Church made a verbal statement in relation to transits, levels, and other instruments which will be hereafter required for the use of the Engineers, and

On motion of the MAYOR, it was unanimously

Resolved, That the Chief Engineer is hereby directed to report to the Commissioners the number, description and cost of the transits, levels and other field instruments, which, in his opinion, will be required for the use of the Engineers of this Commission, together with the names of the persons from whom said instruments can be procured to the best advantage.

Chief Engineer Church also informed the Commissioners that he had received from the following persons, notice of their acceptance of the appointments made by the Commissioners on the 23d inst., viz.:

Alphonse Fteley, Principal Assistant and Executive Engineer.
Henry S. Craven, Engineer of Construction.
Ed. Wegmann, Jr., Assistant Engineer of Construction.
Fred. W. Watkins, Assistant Engineer of Construction.
Fred. S. Cook, Assistant Engineer, in charge of Drafting Department.
Cæsar Leonhard, Assistant Draughtsman.
Henry M. Patterson, Chief Clerk in Engineer Department.

And the Secretary was directed to report to the Commissioners, for entry upon the minutes, the date upon which the above-named persons enter upon the discharge of their respective duties.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, February 6, 1884, at 3 o'clock, P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Consulting Engineer* ADAMS.

The minutes of the Stated Meeting of January 30, were read and approved.

The Secretary read a communication from Comptroller Grant, dated February 5th, 1884, in relation to the sale of "Additional Water Stock" bonds of the City of New York; and submitted statements of the amount of expenditures of .the Aqueduct Commissioners to date, and of the present rate of current monthly expenditures.

Whereupon, Commissioner DOWD offered, and Commissioner BALDWIN seconded, the following resolution:

Whereas, in the estimation of the Aqueduct Commissioners, the sum of fifty thousand dollars will be required to defray the necessary and lawful current expenditures of said Commissioners during the next three months, now therefore, be it,

Resolved, That the Comptroller of the City of New York be and he is hereby requested to raise the said sum of fifty thousand dollars upon bonds of the City of New York, in conformity with the requirements of Section 32, Chapter 490, of the Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said Chapter and Section of said Laws.

Upon which resolution the vote was unanimously affirmative; and the Secretary was directed to have the same officially communicated to the Comptroller.

The COMMISSIONER OF PUBLIC WORKS presented a formal report, with accompanying plans, specifications, estimates and exhibits of the proposed Quaker Bridge Dam; which were ordered placed on file pursuant to the resolution of January 30, 1884.

He also presented a form for the specifications of the "Tunnel Conduit, and brick lining for same, in the new Aqueduct;" which was ordered placed on file, and copies to be furnished to Chief Engineer Church.

Commissioner DOWD stated that a part of the plans, specifications, estimates, &c., heretofore requested from

the Commissioner of Public Works were wanting, and called upon the Secretary for a list of the same, which was furnished.

Whereupon, the Secretary was directed to call the attention of the Commissioner of Public Works to the matter, and request him to furnish the said plans, &c., as early as practicable, and also to request him to furnish plans, specifications and estimates for the proposed "Muscoot Dam."

Chief Engineer CHURCH presented the following communication, which was read and ordered to be entered upon the minutes, viz.:

"CHIEF ENGINEER'S OFFICE,
AQUEDUCT COMMISSIONERS,
Room 109 Tribune Building.

NEW YORK, February 6, 1884.

To the Aqueduct Commissioners:

Gentlemen—The several gentlemen appointed by you to positions in this Department on the 23d of January entered upon their respective duties upon the days named below:

Alphonse Fteley, Principal Assistant and Executive Engineer, February 5th, 1884.

Henry S. Craven, Engineer of Construction, January 24, 1884.

Edward Wegmann, Jr., Assistant Engineer, January 25, 1884.

Frederick S. Watkins, Assistant Engineer, January 25, 1884.

Frederick S. Cook, Assistant Engineer in charge of Draughting Department, January 29, 1884.

Cæsar Leonhard, Assistant Draughtsman, January 29, 1884.

Henry M. Patterson, Chief Clerk of the Engineer Department, February 1, 1884.

Respectfully,

(Signed) BENJ. S. CHURCH,
Chief Engineer."

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH.
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, February 6, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Executive Session of January 30th were read and approved.

The vouchers for the expenditures of the Commissioners during the month of January were then taken up, and for the purpose of establishing a uniform and proper system for regulating and paying the necessary travelling and current petty expenses of the Commissioners, their engineers, or employees, incurred by them in the prosecution of the business of the Commission, certain bills for such expenses, now presented for certification, were referred to the Comptroller, with the request that he inform the Com-

missioners what system shall be adopted in relation to such expenditures.

The Secretary reported verbally the result of a conference with the Counsel to the Corporation in relation to the operation of the Civil Service Law (Chap. 354, Laws of 1883) upon the engineers and employees of this Commission; whereupon,

On motion of Commissioner SPENCER, the Secretary was instructed to obtain from said Counsel to the Corporation a written opinion upon the subject; that the same may be placed upon the files of this Commission.

The Secretary presented a communication from E. Henry Lacombe, Esq., Assistant Counsel to the Corporation, suggesting the publication of the minutes of this Commission in the *City Record*, which was read, and action thereon deferred.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, February 13, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH, and *Consulting Engineer* ADAMS.

The COMMISSIONER OF PUBLIC WORKS, by Deputy Commissioner Hamlin, informed the Commissioners of the reason for his detention from the meeting.

The minutes of the Stated Meeting of February 6th were read and approved.

The Secretary presented a communication from H. Schussler, Esq., dated San Francisco, February 4, 1884, explaining his proposed compensation (as named in a for-

mer letter) and giving the reasons why he would now be obliged to decline to act as Consulting Engineer of this Commission, which communication was read and ordered placed on file.

Chief Engineer Church reported, verbally, the progress made by the surveying parties now on the line of the Aqueduct; and in the preparation of the detailed plans for the proposed Quaker Bridge Dam.

Consulting Engineer Adams reported the condition of the plans, maps, &c., of the Sodom Dam, now being prepared by the Department of Public Works.

He also called attention of the Commissioners to the probable future requirements for water of that portion of the city lying north of the Harlem River; the provision to be made therefor, and its bearing upon the plan and dimensions of the Aqueduct from the north side of the Harlem River to the Central Park Reservoir; and the Commissioners requested that the matter be formally laid before them by the Commissioner of Public Works, where the plans, maps, &c., for that part of the Aqueduct (which were heretofore requested from the Commissioner of Public Works) are submitted to them.

On motion of Commissioner SPENCER, it was

Resolved, That the Commissioner of Public Works be requested, in making an estimate of the cost of the new Aqueduct, to base said estimate upon the construction of an aqueduct of a circular diameter of

fourteen feet, pursuant to the modification made by the Commissioners on the 9th of January, 1884.

And the Secretary was directed to transmit a copy of the resolution to the Commissioner of Public Works, immediately.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, February 13, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Executive Session of January 30 were read and approved.

The Secretary asked further directions from the Commissioners before printing the report of the Commissioner of Public Works (transmitting plans and exhibits of the Quaker Bridge Dam), as directed by the resolution of the Commissioners on the 30th of January; whereupon, on motion of Commissioner DOWD, it was

Resolved, That the Secretary defer said printing until the estimates of the cost of the Aqueduct—upon the basis

of a 14-foot conduit—shall have been received from the Commissioner of Public Works; and that when said estimates are received, 250 copies of the above-named report of the Commissioner of Public Works be printed, together with the specifications and estimates of the Aqueduct, and of the proposed Quaker Bridge Dam.

Chief Engineer CHURCH then presented the following communication, viz.:

"NEW YORK, February 13, 1884.

Hon. Aqueduct Commissioners.

GENTLEMEN:

We require at once for fixing the points of borings of the drilling machines the following surveying instruments, viz.:

One (1) transit instrument,

One (1) level " "

One (1) level rod;

Two (2) flag poles;

Two (2) plum bobs;

One (1) steel tape.

Very respectfully,

(Sgd.) B. S. CHURCH,
Chf. Engr."

—whereupon, on motion of the Mayor, the Chief Engineer was authorized and directed to procure the above-named instruments for the purposes stated.

The attention of the Commissioners was called to the

alleged existence of a law of the State of New York regulating the use of chain or tape measure; and requiring the same to be sealed by the proper authorities of the State at Albany; which matter was referred to Commissioner Spencer, with the request that he investigate the subject, and report the results to this Commission.

On motion of Commissioner DOWD, it was

Resolved, That when this Executive Session is adjourned, it be until Saturday next, the 16th inst., at 3 P. M., to meet the Counsel to the Corporation in conference, with regard to the course of procedure to be followed by this Commission to facilitate and hasten the construction work of the Aqueduct and Reservoirs, and the Secretary was directed to communicate with Corporation Counsel Andrews, and arrange with him for such conference.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, February 16, 1884, at 3 o'clock P. M.

Commissioners present:

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also, *Counsel to the Corporation*, GEORGE P. ANDREWS, Esq., and *Chief Engineer* CHURCH.

The *Mayor* was prevented from attending by official business.

The meeting was held for conference with the Counsel to the Corporation, pursuant to the resolution of the 13th

inst.; and the course of procedure to be followed in the work of this Commission was fully discussed; and a "Memorandum of Procedure," as indicated by the conference, was made by the Secretary for future reference.

The Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

then went into Executive Session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MARCH 26, 1884.

NOTE.--Commissioner of Public Works furnished a copy of the specifications for the new reservoir on the middle branch of Croton River, to accompany the report of February 27, 1884 (opposite), and which is marked "Exhibit T."

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, February 20, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Executive Sessions of the 13th and of the 16th inst. were read and approved.

The Secretary submitted a draft, "Memorandum of Procedure," as indicated by the Conference of the Commissioners and the Counsel to the Corporation on the 16th inst., and was directed to have the same formally approved by the Counsel to the Corporation, and placed upon these minutes as follows:

"MEMORANDUM OF PROCEDURE

In relation to the new Aqueduct, as indicated by the Conference of the Commissioners with the Counsel to the Corporation—in Executive Session—February 16, 1884.

SECTION 2. "Prior to the final adoption of such plan or plans, the Aqueduct Commissioners' shall afford to all persons interested a full opportunity to be heard," etc.

The view of the Counsel to the Corporation is, that the "plan" and maps of the final location of the Aqueduct, its shafts, portals, etc., now being made, must be submitted to a public hearing prior to the final adoption by the Commissioners.

The "plans" to be thus submitted, include:

1st. Maps, showing the route of the Aqueduct, and widths of lands required on the line, and at the shafts, portals, etc.

Profile of the surface, and tunnel, open cuts, etc.

Cross-section plan of the Aqueduct, its mode of lining, etc.

2d. With these "plans" are also to be submitted.

The general specifications for the construction of the Aqueduct, and the estimates of its cost, which the Commissioner of Public Works furnishes with his "plans."

When said "plans" are finally adopted by the Aqueduct Commissioners, they are to return a copy thereof to the Commissioner of Public Works, with their certificate of adoption thereon.

PROPERTY MAPS.

SECTION 4. When "plans" are finally adopted, the Commissioner of Public Works shall prepare "six similar

maps or plans" ("called for convenience" by the Counsel to the Corporation, in his opinion of November 13th, "Property Maps") whereon shall be laid out, numbered, etc., all parcels of land to be taken—those in "fee" and those on which an easement is required to be delineated; also all courses, distances, areas, etc., etc., as detailed in the instructions to the engineers, dated 12th of December, 1883. These copies are to be certified by the Aqueduct Commissioners, and by them transmitted to the Counsel to the Corporation.

SECTION 5. Counsel to the Corporation to file one copy of maps in office of County Clerk, or Register, of Westchester County and of New York.

SECTION 6. Counsel to the Corporation, after due notice, to apply to the Supreme Court to appoint Commissioners of Appraisal. The application is made upon petition of the Commissioner of Public Works.

SECTION 7. Notice of application to be advertised for six weeks. This section enumerates the detailed description of the lands required to be given in this notice, and which the engineers must furnish to the Counsel to the Corporation.

SECTION 8. After the appointment of the Commissioners of Appraisal, they are to take and file an official oath; whereupon the Mayor, etc., of New York, can take possession of the required lands.

SECTION 25. Upon the filing of the oath of the Commissioners of Appraisal, the Commissioner of Public Works is to furnish forms of contract, specifications and bonds, for doing the work; which are subject to the approval of

the Aqueduct Commissioners, and, "as to form," by the Counsel to the Corporation.

SECTION 26. When the forms of contract, specifications and bonds are approved, then the Aqueduct Commissioners shall advertise for fifteen days' for bids.

SECTION 28. Upon the expiration of the fifteen days, the bids are to be opened in public, and determined upon by the Commissioners.

Pending the above legal formalities, the engineers should prepare, in consultation with the Counsel to the Corporation, the detailed specifications and plans for the construction work. These specifications should be definite as to mode of construction, quality and description of all materials known, or expected, to be required in the construction work; and at the same time the contracts and specifications should be so drawn as to reserve to the Commissioners the right to make such alterations and changes (authorized by Section 2), with detailed specifications and plans therefor, as in the opinion of the Commissioners are rendered necessary by physical obstacles or engineering difficulties now unknown or unforeseen, or which may be required for the best interest of the work; and which will develop, and must be provided for, as the work progresses.

MODIFICATIONS.

By Section 2 the Commissioners have the power, after the final adoption of the original plan, to modify the same from time to time as they may deem necessary.

In the opinion of the Counsel to the Corporation, modifications and changes made after the original plans have

been finally adopted and filed, and such as the Aqueduct Commissioners may from time to time deem necessary for the more efficient carrying out of the provisions of the act, need not be referred to the Commissioner of Public Works. Nor is he of the opinion that such changes and modifications must be submitted to public hearing yet, as a precaution against the possibility of legal objections as to the regularity of the Commissioners' proceedings, he advises that whenever a modification or change is made of magnitude or importance, or which may be regarded such a departure from the adopted plans as to raise the question whether it is not a new plan, said modification or change should be submitted to a public hearing.

LANDS TAKEN BY AGREEMENT WITH OWNERS.

As power is given by Section 23 to agree with the owners of lands (subject to the approval of the Board of Estimate and Apportionment), the Commissioners can, as soon as the property maps of the final location are received, proceed to obtain the right to the lands wherever such agreements can be made. In case of such agreements, the titles to the land will require to be searched before deeds are accepted and payment made, meanwhile possession should be obtained by a written contract with the owner, giving the Commissioners the right to enter and commence work upon the land. If it be deemed advisable to obtain possession by such agreement, a form of contract should be prepared, and proper persons selected to negotiate with the owners, as soon as the required details are known; and as soon as such agreements can be had with the owners of all the land required upon any one section, work can be immediately commenced upon said section. (See Opinion Counsel to Corporation, October 13, 1883.) These "sec-

tions" should therefore be determined and defined as soon as practicable, and the maps made and filed in sections, in order that work may be commenced on such of said sections as are free from impediments, without waiting for possession of other parts of the line.

Approved February 25, 1884.

(Sgd.) GEORGE P. ANDREWS,
Counsel to the Corporation."

The Comptroller returned certain bills for expenditures of the Commissioners and Engineers, which were referred to him in Executive Session, on the 6th instant, and read a letter to him in relation thereto from Auditor Lyon of the Finance Department, of which letter the Secretary was directed to make a copy, and to enter the same upon these minutes, as follows:

"CITY OF NEW YORK,
FINANCE DEPARTMENT, COMPTROLLER'S OFFICE,
February 20, 1884.

Hon. S. HASTINGS GRANT,
Comptroller.

Dear Sir,—Referring to the claims of James C. Spencer, H. S. Craven, and B. S. Church for disbursements in the nature of traveling expenses, incidental to the work and business of the Aqueduct Commission, I would respectfully report that I have carefully considered the question whether claims of the character of those above mentioned are legitimate charges against the Commission, and payable out of the Aqueduct Fund, and I am of the opinion that where such claims shall have been certified by the Commissioners as necessarily incurred in connection with the work and business of said Commission, they will be

legitimate charges against the fund, and should be paid by the Comptroller.

The Commissioners are trustees of a fund to be used within the limitations of the trust, for certain well defined uses and purposes, and as such Trustees have power to charge against the fund such expenses as are necessarily incidental to the proper execution of the trust.

I would suggest that a proper accounting can best be had by specifying in such claims all such details as to dates and subject-matter, as will render unnecessary any explanations outside of the claims or vouchers themselves; and that sub-vouchers should, whenever it is practicable to obtain them, be attached to the claims, and the claims should be verified by the oath of the person making the same.

Yours truly,

(Sgd.) WILLIAM J. LYON,
Auditor of Accounts."

On motion of Commissioner BALDWIN, it was

Resolved, That the suggestion of Auditor Lyon, as stated in the last clause of the above letter be adopted and complied with in future audit of vouchers for such expenditures as said letter refers to.

Comptroller GRANT offered the following resolution:

Resolved, That to the "General Rules and Regulations of the Aqueduct Commissioners" heretofore adopted, the following article shall be added, viz.:

ARTICLE III.

There shall be a Committee of "Finance and Audit," composed of three Commissioners, who shall have

supervision of all accounts and books of account of the Commission, and who shall audit and report to the Board all expenditures by, and claims against, the Commission.

Which was adopted unanimously.

Commissioner THOMPSON moved that the Committee on Finance and Audit be appointed by the President, which motion was adopted; and the President appointed as said Committee, Commissioners Baldwin, Dowd and Spencer.

A communication was received and read from Engineer of Construction Craven, in relation to the purchase (for the uses of the engineers) of a pair of horses, and the death of one of them; which was referred to the Committee of "Finance and Audit."

The session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, February 27, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also *Counsel to Corporation*, ANDREWS.

Chief Engineers CHURCH and NEWTON, and *Consulting Engineer* ADAMS were also present.

Minutes of the Stated Meeting of February 20th were read and approved.

The Secretary presented a communication from Hon. O. B. Potter, regarding the appointment of an overseer on the Aqueduct, which was ordered placed on file.

Chief Engineers Church and Newton reported (verbally) the progress making on the different surveys, maps, etc., etc., and made statements relating to the future progress of the work.

The COMMISSIONER OF PUBLIC WORKS presented a report dated February 27, 1884, relating to the construction of a dam and reservoir "I" (commonly known as the "Sodom Dam and Reservoir"), together with an estimate, "Exhibit Q," and plan and section of said dam, "Exhibit R" and "R2."

Which, on motion of Commissioner BALDWIN, was received, ordered placed on file and referred to the Chief Engineer; and the Secretary was directed to have 250 copies of said report and estimate printed for the use of the Commissioners, and for public distribution.

The MAYOR offered the following resolution, which was adopted unanimously:

Resolved, That the plan showing the route for the new Aqueduct across and under the Harlem River to the north side of Manhattan Valley, submitted to this Commission by the Commissioner of Public Works, with his report of the 20thof February, and entitled a "General Plan showing the location and profile of the proposed passage of the Harlem River of the New Aqueduct," and designated in said report "Exhibit P," be and the same is hereby approved and adopted as the route of the new Aqueduct from the east side of Harlem River near and above High Bridge, across

and under said river, and to the north side of Manhattan Valley, subject, however, to such modifications as these Commissioners may hereafter deem expedient, and as they are authorized by law to make.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session, and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, February 27, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Corporation Counsel* GEORGE P. ANDREWS, and *Chief Engineers* CHURCH and NEWTON.

The minutes of the Executive Session of February 20, 1884, were read and approved.

The Secretary reported that, in obedience to the direction of the Commissioners (of the 20th instant), the formal approval of the "Memorandum of Procedure" by the Counsel to the Corporation had been obtained, and the same placed on file.

The following communication from the COMPTROLLER was read, and ordered placed on file, and to be entered upon the minutes, viz.:

"CITY OF NEW YORK,
FINANCE DEPARTMENT—COMPTROLLER'S OFFICE,
February 23, 1884.

JAMES W. MCCULLOH, Esq.,
Secretary Aqueduct Commissioners.

Dear Sir:

I am in receipt of your communication of the 7th inst., transmitting resolution adopted by the Aqueduct Commissioners, requesting the issue of $50,000 bonds of the City of New York, pursuant to the provisions of Section 32 of Chapter 490, Laws of 1883, for the use and purposes of said Commissioners.

The Comptroller received proposals for $50,000 'Additional Water Stock of the City of New York,' on the 20th inst., under Section 34 of Chapter 490 of the Laws of 1883, and awarded the full amount of the stock to the highest bidder, at a premium of $3.39 per centum.

The principal sum of $50,000 with the premium, $1,695, in all $51,695, was paid into the City Treasury on the 21st inst., and is subject to the requisitions of the Aqueduct Commissioners.

Respectfully,
S. HASTINGS GRANT,
Comptroller."

On motion of Commissioner THOMPSON, the Chief Engineer was directed to examine the lands upon the line of the new Aqueduct, as now located, and to report to this Commission, of which parcels of said lands the fee, and over or through which parcels an easement right, and the nature thereof, should in his judgment be acquired.

Upon motion of the MAYOR, Commissioners Spencer, Dowd and Baldwin were appointed a committee to arrange

for a public hearing prior to the final adoption of the various plans, now under consideration by this Commission, for the construction of the new Aqueduct, dams, reservoirs, and their appurtenances; the said hearing to be given at the earliest time practicable; the time therefor to be fixed by said committee, and the public notice thereof to be given under their direction.

On motion of Commissioner BALDWIN, it was

Resolved, That the Chief Engineer be authorized to organize, and report to this Commission, two leveling and one transit parties, to establish bench marks and monuments along the line of the Aqueduct, especially at the shafts; one leveling party to follow and check the other; and that he recommend to this Commission suitable persons for appointment in the said parties, and the rate of their compensation; and that he also report the kind and cost of the instruments and tools which will be required to equip said parties.

Commissioner SPENCER, of the Committee on Furniture and Offices, verbally reported what arrangement the committee could make for additional offices in the Tribune Building; and said committee was thereupon requested to examine, and report to the Commissioners, what offices and rentals could be obtained by the Commissioners, in the Stewart Building on Broadway and Chambers street.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, March 5, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also *Chief Engineers* CHURCH and NEWTON, and *P. A. Engr.* FTELEY.

The minutes of the Stated Meeting of February 27th were read and approved.

Chief Engineers Church and Newton reported (verbally) progress making in completing surveys and maps of the new Aqueduct line, its shafts, &c.

The COMMISSIONER OF PUBLIC WORKS presented a com-

munication, dated March 4, 1884, with following exhibits, viz.:

Exhibit "S"—Sketch of cross section of Aqueduct, enlarged to 14′ in diameter.

Exhibit "C 2"—Map of the Quaker Bridge Reservoir (as subsidiary map to Exhibit C, submitted August 8, 1883).

Which, on motion of Commissioner SPENCER, were received, and ordered to be placed on file, and referred to the Chief Engineer.

The COMPTROLLER presented the following resolution, which was adopted unanimously, and ordered to be entered upon the minutes, viz.:

Resolved, That to the General Rules and Regulations of the Aqueduct Commissioners heretofore adopted, the following article, approved in Executive Meeting of February 20, 1884, be added to the said Rules and Regulations:

"ARTICLE III.

"There shall be a Committee of Finance and Audit, "composed of three Commissioners, who shall have "the supervision of all accounts, and books of account "of the Commission; and who shall audit and report "to the Board all expenditures by, and claims against "the Commission."

The "Committee on Finance and Audit" reported bills and vouchers dated March 4, 1884, numbered respectively 100, 101, 102, 103, 104 and 105, duly audited by said Committee; which were on motion of Commissioner THOMPSON approved by the Board.

On motion of Commissioner BALDWIN, the Commissioners then went into Executive Session, and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, March 5, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Executive Session of the 27th of February were read and approved.

The Special Committee, appointed to negotiate for additional offices, presented a report dated March 4, 1884, whereupon,

The MAYOR offered the following resolution:

Resolved, That the report of the Special Committee appointed to negotiate for offices, be received and placed on file, and that the recommendation of the Committee to obtain the additional rooms required in the Tribune Building be adopted; and that the Committee be authorized and empowered to carry out said recommendation at the increased rental of $1,100 per annum, subject to the approval of the Board of Estimate and Apportionment.

Which resolution was adopted by the following vote:

Affirmative—The Mayor, The Comptroller, Commissioners Spencer, Dowd and Baldwin.
Negative—The Commissioner of Public Works.

And on motion of Commissioner BALDWIN, the said Special Committee was continued, with the request that they should ascertain and report, whenever, and on what better terms than are now named for the rental of offices in the Stewart Building on Broadway, suitable rooms can be obtained there for this Commission.

The Secretary presented a written opinion of the Counsel to the Corporation, dated February 21, 1884, to the effect that the engineers and employees of the Aqueduct Commission are not amenable to the rules and regulations established for the regulation of admissions into the Civil Service of the City; nor to those established in relation to the Civil Service of the State of New York; which was,

On motion of Commissioner THOMPSON, ordered to be placed on file.

Commissioner THOMPSON then called the attention of the Commissioners to a bill now before the Legislature of the State (known as Senate Bill 133), and its probable effect upon this Commission; which matter was discussed and deferred for further information and advice regarding the provisions of said bill.

The Secretary then asked the attention of the Commissioners to the matter of the accounting of the Commission; and the appointment of an auditor, or of a bookkeeper, whichever the Commissioners deemed advisable; which matter was discussed, and the qualifications of different candidates canvassed; whereupon,

On motion of the MAYOR, the employment of the book-keeper was referred to the Committee of Finance and Audit, to select and report to the Board a suitable person for that position, and the rate of his compensation.

On motion of Commissioner SPENCER, it was

Resolved, That for the benefit and information of this Commission, Chief Engineer Church and Principal Assistant Engineer Fteley are authorized to proceed to Washington and Baltimore, to examine the water-works now under construction in the former, and lately constructed in the latter city; and to leave this city on Monday next, the 10th inst., for that purpose.

And on motion of Commissioner BALDWIN, it was

Resolved, That as many members of the Commission as are able to leave the city on Tuesday next, will accompany said Engineers in making the examination of the above-named water-works.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—No meeting of the Commissioners was held on the regular day of meeting, to wit, March 12, 1884, for the reason that upon that day the Commissioners were on an official visit to the cities of Washington and Baltimore, for the purpose of examining the new water-works now under construction in the former, and lately completed in the latter city.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, March 19, 1884, at 2 o'clock, P. M.

Commissioners present:

The Mayor.

The Comptroller.

Commissioner of Public Works.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Counsel to the Corporation George P. Andrews, Chief Engineer Church, Principal Assistant Engineer Fteley, and Consulting Engineer Davis.

Also Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing pursuant to the following notice.

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78 Tribune Building,

NEW YORK, March 10, 1884.

PUBLIC NOTICE—FINAL HEARING.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883 of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the various plans now under consideration by the Aqueduct Commissioners for the location and construction of one or more of the following dams and reservoirs upon the Croton River, in the County of Westchester, viz.:

FIRST.—That known as the "Quaker Bridge Dam" and "Reservoir" about four miles below the present Croton Dam.

SECOND.—The "Muscoot Dam" and "Reservoir," at Muscoot Mountain, about six miles above the present Croton Dam.

THIRD.—The "Dam and Reservoir I" on the East branch of Croton River commonly known as the "Sodom Dam and Reservoir."

Also, as to the final location and construction of the new Aqueduct upon the route known as the "Modified Hudson River Route," commencing at a point near the sent Croton Dam; running thence southwesterly to a it near Maurice Avenue, at Sing Sing; thence southerly

to and across the Pocantico Valley, and into the Saw Mill River Valley, east of Tarrytown; thence southwesterly to a point on the east bank of the Harlem River, near and above the High Bridge, and distant from the point of beginning, about 29 miles; thence westerly under and across the Harlem River, and thence southerly to the north side of Manhattan Valley, a distance of about 2½ miles—the total length of said Aqueduct being about 31½ miles.

Also, as to the dimensions and plans of constructing the said new aqueduct, the location of the working shafts, portals, etc., etc.

All as shown upon the plans, maps and profiles in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room 78 Tribune Building, in the City of New York, on Wednesday, March 19, 1884, at 2 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned, until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

—and was attended by many property owners, and other persons interested, among whom were Messrs. Cyrus W. Field, Horace B. Claflin, William R. Arnoux, George Hart, Joseph P. Disbrow, Benjamin Odell and Joseph Benedict, James E. Serrel, and others of the Central Taxpayers' Association.

Upon invitation of the President, all persons who desired, were heard; and full reports thereof were recorded by the official stenographer.

Upon the statement of William H. Arnoux, Esq., that he desired more time for himself—and others whom he represented—to make further examinations as to the proposed new Aqueduct, Dams, etc., based upon the plans, specifications, and estimates of the Commissioner of Public Works, now under consideration by this Commission, the Mayor announced that to give Judge Arnoux and all others who may desire, full opportunity to be heard, the hearing would be adjourned to Saturday next, the 22d inst., at 3 o'clock P. M., and thence until Wednesday, the 26th inst., at 3 o'clock P. M., on which last named day the hearing would be concluded.

The hearing was then adjourned until Saturday next, the 22d inst., at 3 P.M., and the regular order of business taken up.

The minutes of the Stated Meeting of March 5th were read and approved.

The Committee on Finance and Audit presented the following vouchers for expenditures of the Commission, viz.:—Nos. 106 to 121, inclusive; which having been duly examined and certified by said committee, were approved by the Board and certified to the Comptroller.

A communication was received from from Theo. Weston, C. E., relative to the size of the new Aqueduct; and was referred to Chief Engineer Church, for consideration and report.

A communication was presented from Everett P. Wheeler, Esq., enclosing one relating to the cost of the construction work of the new Aqueduct, which was ordered placed on file.

Applications were received from several persons, seeking employment in the Engineer Corps, and were referred to the Chief Engineer.

The following resolution was offered by Commissioner DOWD, and seconded by Commissioner THOMPSON:

Resolved, That the Secretary is hereby directed, from and after this date, to publish the minutes of the Stated Meetings of this Commission in the *City Record*, within ten days after each of said meetings.

Which were passed unanimously.

Matters relating to the right of way to be acquired were then discussed, and after conference with the engineers present, it was

Resolved, That it is the sense of this Commission that a right of way for the new Aqueduct, whether the fee in the lands, or an easement right is to be acquired, be obtained of the width of sixty-six (66) feet; excepting where additional widths are required for cuts and embankments, and for shafts, portals, dumping grounds and other appurtenances of said aqueduct, and that the property maps for said right of way be prepared in accordance therewith, unless where it may be otherwise directed by this Commission hereafter.

Chief Engineer Church asked authority to select an assistant for duty in the office of the Engineer of Construction, and to obtain suitable offices at or near Tarrytown for said engineer, his asssistants and draughtsmen, which matters were referred to the Committee on Finance and Audit, with power.

The meeting was then adjourned.

JAMES W. McCULLOCH,
Secretary.

MINUTES OF THE ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, March 22, 1884, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also *Counsel to the Corporation*, GEORGE P. ANDREWS.
Chief Engineer CHURCH.
And *Chief Engineer* NEWTON and *Consulting Engineer* ADAMS, of the Department of Public Works.

In the absence of the MAYOR, Vice-President DOWD presided, and opened the meeting for public hearing, pursuant to the adjournment from Wednesday the 19th.

Many persons attended, including the following property owners, viz.:

S. Van C. Van Rensselaer, representing the Van Court-

land estate near Muscoot Dam; Augustus Van Courtland, James Pyle, Sherbourne Van Tassel, Benjamin Odell, Joseph P. Disbrow, Samuel T. Knapp and Joseph Benedict.

Also James E. Serrell, City Surveyor, representing the Central Taxpayers' Association, and Theodore Weston, C. E., who delivered a written communication, which was referred to Chief Engineer Church.

All who desired to be heard were given the opportunity to make their statements, which were recorded by the official stenographer; and explanations were given by Chief Engineer Church to all who desired further information.

The hearing was then adjourned until Wednesday next, the 26th inst., at 3 o'clock P. M.

After the adjournment of the hearing, Commissioner THOMPSON offered the following resolution, which was seconded by Commissioner BALDWIN:

Resolved, That the public hearing upon the plans now under consideration by the Commissioners (as advertised) be finally closed on Wednesday next.

Which resolution was lost by the following vote:

In the affirmative: Commissioners Thompson and Baldwin. In the negative: Commissioners Grant, Dowd and Spencer.

The meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, March 26, 1884, at 3 o'clock P. M.

Commissioners present:

Commissioner *of Public Works.*
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH.
And *Chief Engineer* NEWTON and *Consulting Engineer* ADAMS, of the Department of Public Works.

In the absence of the MAYOR (he and the Comptroller being detained by a meeting of the Trustees of the Brooklyn Bridge), Vice-President DOWD presided.

The meeting was opened for public hearing, pursuant to notice, and of the adjournment of said hearing from the 3d inst., and was largely attended.

Among the property owners and residents upon the line of the proposed aqueduct and in the vicinity of the

proposed Quaker Bridge and Muscoot Dams and Reservoirs, in Westchester County, were Messrs. Charles E. Wickware, James Wood, William H. Nelson, Joseph Benedict, Benjamin Moore and D. B. Moses. Also Louis D. Beck, representing the owners of the Van Courtland property at Quaker Bridge Dam and Reservoir.

Also Civil Engineers Charles H. Haswell and Theodore Weston, of this city.

James E. Serrell, City Surveyor; Charles I. Schampain, and others, representing the Central Taxpayers' Association.

And William H. Arnoux, Esq., representing Messrs. O. B. Potter, William H. Webb and others.

Mr. James Wood, of Mt. Kisco, Westchester County, first addressed the Commissioners, and advocated the construction of the Quaker Bridge and the Muscoot Dams and Reservoirs.

Mr. James E. Serrell, on behalf of the Central Taxpayers' Association, was next heard in opposition to all plans now before the Commissioners.

W. H. Arnoux, Esq., on behalf of Messrs. O. B. Potter, William H. Webb and others, requested still further time for the parties he represented, to be heard in opposition to the proposed Quaker Bridge and Muscoot Dams and Reservoirs, and in favor of the Sodom Dam.

All of the statements of the above-named parties were fully recorded by the official stenographer.

After conference, Vice-President Dowd announced that in compliance with the request of Judge Arnoux, and to afford all others who desired full opportunity to be heard, the hearing would be adjourned until Saturday, the 29th

inst., at 3 o'clock P. M., and continued at the same hour on Monday, Tuesday and Wednesday next, by which last named day all who desired to be heard should appear. And the Secretary was directed to give public notice to that effect.

The hearing was then adjourned until Saturday, 29th inst., at 3 o'clock P. M.

The regular order of business was taken up, and the minutes of the Stated Meeting of the 19th and the Adjourned Meeting of the 22d inst. were read and approved.

The Committee of Finance and Audit reported vouchers for expenditures of the Commissioners, numbered 122, 123 and 124, which, having been duly examined and audited by said Committee, were approved by the Board, and certified to the Comptroller.

The said Committee, to which had been referred the selection of a bookkeeper for the Commission, recommended the appointment of Charles J. Febre, at the salary of fifteen hundred dollars per annum, whereupon it was

Resolved, That Charles J. Febre be and he is hereby appointed bookkeeper of this Commission, to date from the 1st of the ensuing month, at the salary of fifteen hundred dollars per annum, subject to the approval of the Board of Estimate and Apportionment.

On motion of Commissioner SPENCER, the Commissioners then went into executive session, and, upon resuming open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, March 26, 1884.

Commissioners present:

Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Vice-President DOWD presided.

The minutes of the Executive Session of March 5, 1884, were read and approved.

Commissioner DOWD presented a communication from Hon. S. S. Cox, dated March 24, 1884, recommending the selection of Hon. E. R. Meade as assistant counsel to examine titles of lands to be taken by the Commission.

Which communication was ordered to be placed on file.

The MAYOR and COMPTROLLER then appeared, having been detained at the meeting of the Trustees of the Brooklyn Bridge.

A communication was presented by Chief Engineer Church, dated March 26th, requesting the appointment of one topographical and one mechanical draughtsman, and giving the names of several persons suitable therefor, and the rate of their respective compensation. After examination and consideration of their respective testimonials it was,

On motion of Commissioner BALDWIN,

Resolved, That the following persons be and they are hereby appointed to the following positions in the Engineer Department of this Commission, viz.:

Antonio A. Aguirre, as Topographical Draughtsman, at the salary of eighteen hundred dollars per annum.

Corydon P. Karr, Mechanical and Masonry Draughtsman, at the salary of fifteen hundred dollars per annum.

On motion of Commissioner DOWD, it was

Resolved, That the Commissioner of Public Works be and he is hereby requested to prepare and submit to this Commission as soon as practicable maps showing the location and area of the lands required for the working shafts or adits, dumping grounds and roadways thereto, for the construction of the new Aqueduct, so far as the same have been definitely located.

It was also

Resolved, That the Chief Engineer be and he is hereby directed to prepare for the consideration of the Commissioners detailed plans, specifications and estimates for constructing said working shafts or adits, to the end that if hereafter it be deemed expedient by the

Commissioners contracts may be made for the sinking of said shafts or opening of said adits independently of the contracts for the construction of the tunnel of the Aqueduct.

On motion of Commissioner SPENCER, the Secretary was directed to prepare, and hereafter keep, for use and information of the Commissioners, a full record of all applications, now on file or hereafter received, for appointment to positions in the office of the Commissioners, and in the Engineer Department, with the names, residence and official designation of the persons recommending the applicants.

On motion of Commissioner SPENCER, it was

Resolved, That the Special Committee, appointed by Resolution of January 30, 1884, "to procure additional offices, office furniture and supplies, for the use of the Commissioners and the Engineer Department," be discharged from further duty in the premises, and that the duties and powers of said Committee be and the same are hereby devolved upon the Committee of Finance and Audit.

The executive session then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, March 29, 1884, at 3 o'clock P. M., for public hearing.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners WILLIAM DOWD and C. C. BALDWIN.

Also Counsel to the Corporation George P. Andrews, Chief Engineer Church and Executive Engineer Fteley; and Chief Engineer Newton and Consulting Engineer Adams, of the Department of Public Works.

Many persons were present, including Messrs. Joseph Benedict, Louis D. Beck, James E. Serrel and others.

The MAYOR invited any of those present who desired to be heard to address the Commissioners. No one responded, and after waiting due time for any others to appear, the following resolution was offered by Commissioner BALDWIN, and read to those present:

Resolved, That the hearing held pursuant to public notice, commenced on the 19th instant, continued on the 22d, 26th, and upon this day, in relation to the location and construction of the Quaker Bridge Dam and Reservoir, the Muscoot Dam and Reservoir, the Sodon Dam and Reservoir, and of the proposed new Aqueduct from the Croton River to the north side of Manhattan Valley, be continued on Monday next, March 31, Tuesday, April 1, and Wednesday April 2, 1884, at 3 o'clock P. M. of each day, for the hearing of any further objections in relation thereto; and that on the last-named day the said hearing be finally closed; and that the Secretary give public notice to that effect.

The resolution was seconded by Commissioner DOWD, and passed unanimously.

The hearing was then adjourned until Monday next, 31st inst., at 3 o'clock P. M.

Chief Engineer Church presented a communication dated March 29, 1884, in relation to the time for preparing specifications and commencement of construction work, which was on motion of the MAYOR received, and ordered placed on file, and the Secretary directed to have copies prepared and one furnished to each of the Commissioners immediately.

The meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, March 31, 1884, at 3 o'clock P. M., for public hearing.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD, and C. C. BALDWIN.

Also Counsel to the Corporation George P. Andrews, Chief Engineer Church, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

Many persons were present, including Messrs. O. B. Potter, Wm. H. Webb, Alvin P. Man, Joseph Benedict, William H. Arnoux and others.

Also James E. Serrel and Thos. L. Feitner, representing the Central Tax Payers' Association.

Messrs. O. B. Potter, Wm. H. Webb, Alvin P. Man and William H. Arnoux were heard; all opposing the building

of the Quaker Bridge Dam, and asking further delay in closing the public hearing. Their statements were fully recorded by the official stenographer.

O. B. Power demanded that under the power vested by the law in the Commissioners, subpœnas be issued to ensure the attendance of certain civil engineers as witnesses before this Commission; and Commissioner Spencer responded that he would issue such subpœnas at once to all whose names Mr. Potter would furnish; Mr. Potter subsequently furnished the names of Messrs. Edward S. Renwick, Henry B. Renwick, Samuel McElroy, William J. McAlpine, Wm. E. Worthen, and subpœnas were issued to them and given to Mr. Potter.

The Mayor announced that it was the purpose of the Commissioners to grant the fullest opportunity to all who desired to be heard, or to furnish useful information to the Commissioners, but that it was imperatively necessary that the public hearings—which had already caused great delay in the work of the Commissioners—should be speedily closed, the plans finally determined upon, and the actual construction work begun. The hearing would be continued to-morrow, Tuesday, the 1st, and on Wednesday, the 2d day of April, at 3 o'clock P. M., and on the last day it would be determined what, if any, further time should be given for said hearing, before its final closing.

The Commissioners then adjourned until to-morrow, April 1st, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, April 1, 1884, at 3 o'clock P. M., for public hearing.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Chief Engineer* NEWTON of the Department of Public Works.

Vice-President DOWD presided, and opened the meeting for public hearing.

Many owners of property to be affected were present, including Messrs. David B. Moses, Joseph Benedict, Dr. John Wetherill and others.

Also Robert L. Darragh and James E. Serrel.

Mr. Robert L. Darragh was the only person present who desired to be heard; and was not prepared to make further statements at present, and wished additional time granted. He was asked to be prepared to submit at the meeting of to morrow any such further statement as he wished to add to those heretofore made by him.

The hearing was then adjourned until to-morrow, Wednesday, the 2d inst., at 3 o'clock P. M.

The Commissioners then went into Executive Session, and upon resuming open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, April 1, 1884.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD, and C. C. BALDWIN.

Also Chief Engineer Church, Engineer of Construction Craven, and Chief Engineer Newton of the Department of Public Works.

The matter of making some changes in the line heretofore adopted for the new Aqueduct was discussed, in consultation with the above-named engineers, and, upon motion of Commissioner BALDWIN, it was

Resolved, That for the purpose of shortening the line of the Aqueduct, as far as practicable, the Commissioner of Public Works be, and he is hereby requested to cause surveys to be made of a line or route for said

aqueduct beginning at the present proposed northern terminus thereof near the present Croton Dam, and running thence, as near as practicable, in a direct line to an intersection with the line now located upon the "Modified Hudson River Route" at or near Station 410 on the map of said line (Sheet No. 1 of the maps submitted to this Commission by the Commissioner of Public Works and now on file in this office), upon lands described upon said map as the property of "H. Vulgar or Henry Welcher;" and to submit to this Commission, as soon as practicable, a map and profile thereof, and the location of the shafts, adits or portals thereon.

And the said Commissioner of Public Works is also requested to have such further examinations and surveys made upon the route of the said "Modified Hudson River Route" as may be necessary to determine what, if any, changes can be made for the improvement of the line of the Aqueduct or saving of expense in land damages, upon the following portions of said line, and which may be described as follows: From about Station 510 north of "Glenville" (so called on County Map), southward to about Station 590, including the property commonly known as the "Gould Swamp" lands; also from about Station 630, at shaft located near Dublin Road or "Mountain Avenue," southward to about Station 750 (near the Ashford Road, above the lands of James Pyle, including the lands of Cyrus W. Field, as shown upon the map (Sheet No. 2) of said "Modified Hudson River Route," and that he submit to this Commission, as soon as possible, maps and profiles of such changes as may be found practicable in said portions of said line.

And be it further

Resolved, That the Commissioner of Public Works be, and he is hereby requested to have all the above-named examinations and surveys made in consultation with, and with the concurrence of the Chief Engineer of this Commission.

Engineer of Construction Craven stated that more horses, vehicles, and harness were required for the use of the engineers, and explained the necessity for their procurement.

Whereupon, on motion of Commissioner SPENCER, it was

Resolved, That the Chief Engineer be, and he is hereby authorized to purchase one pair of horses, at a cost not to exceed five hundred dollars ($500); one set of double harness, one set of single harness and one buggy wagon; and also to receive from J. D. Brown one horse, agreed to be furnished by him for one hundred and fifty dollars, to supply the place of one that died.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 2, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Counsel to the Corporation; Chief Engineer Church and Executive Engineer Fteley; and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing pursuant to adjournment from the 1st inst.

Many persons were in attendance, including Messrs. Robert L. Darragh, David B. Moses, William H. Webb, Joseph Benedict, George Hart, Joseph P. Disbrow, Alexander M. Ross, Fordham Morris, and William H. Arnoux.

Also Civil Engineers Edward S. Renwick, Theodore Weston and Samuel McElroy, and James E. Serrel and

Thomas L. Feitner, representing the Tax Payers' Central Association.

The following gentlemen were heard by the Commissioners and their statements fully recorded by the official stenographer, viz.: Fordham Morris, Esq., representing the New York City and Northern Railroad Company; William H. Arnoux, William H. Webb, Robert L. Darragh, and Alexander M. Ross, in opposition to the Quaker Bridge Dam and Reservoir.

On demand of William H. Arnoux, Chief Engineer Church was sworn as a witness, and examined by Mr. Arnoux, and the testimony duly recorded by the stenographer.

During the examination of Chief Engineer Church, Mr. Arnoux asked the Commissioner of Public Works for an estimate of the cost of the Quaker Bridge Dam and Reservoir, which was furnished by him, and delivered to the Commission to be placed on file; and with the explanation that this estimate did not include the cost of lands, and land damages, roads, bridges, etc., which he estimated in round numbers at $1,000,000.

The Commissioners called for the testimony of the civil engineers then present, who had been subpœnaed as witnesses on behalf of Messrs. Potter and others, opposing the construction of the Quaker Bridge Dam; but it was stated that they were not prepared to testify at present; and no one else appearing, the hearing was adjourned until to-morrow, the 3d instant, at 3 o'clock P. M.

The regular order of business was then taken up, and the minutes of the Stated Meeting of the 26th were read and approved.

Chief Engineer Church presented a communication dated April 2, 1884, in response to the resolution of the Commissioners of February 27, 1884, authorizing the organization of one transit, and two leveling parties, and the purchase of instruments for said parties; which was laid over for future consideration.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, April 3, 1884, at 3 o'clock P. M., for public hearing.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and C. C. BALDWIN.

Also Assistant Corporation Counsel E. Henry Lacombe, Chief Engineer Church, and Chief Engineer Newton of the Department of Public Works.

The meeting was held for public hearing of all persons interested, pursuant to adjournment of said hearing from the 2d inst.

Many persons were present, including Messrs. William H. Arnoux, William H. Webb, Robert L. Darragh, and Alexander M. Ross, who were heard in opposition to the construction of the Quaker Bridge Dam and Reservoir;

and Messrs. Joseph Benedict and J. W. Adams, in favor of the construction of said dam and reservoir.

Also Messrs. David B. Moses, George Hart, Benjamin Odell and other property owners on the line of the Aqueduct.

Also Civil Engineers E. B. Dorsey, Theodore Weston, William R. Hutton and Samuel McElroy.

And also James E. Serrel, Thomas L. Feitner and others, representing the Central Tax Payers' Association.

The Commissioner of Public Works was asked by Mr. Arnoux for an estimate of the cost of the construction of the Quaker Bridge Dam; and in response, presented an approximate estimate of the quantities and probable cost of the construction work upon said dam; amounting to a total of $2,870,000, which was read, and directed to be placed on file.

Mr. Arnoux demanded that Chief Engineer Church be sworn as a witness; which was done, and his testimony recorded by the official stenographer.

Addresses were made by Messrs. Webb, Darragh, Arnoux and Ross; all opposing the construction of the Quaker Bridge Dam and Reservoir, and demanding further delay in closing the hearing thereon.

The MAYOR stated his views as to the proper course to be followed, with regard to further hearings; and requested that on Monday next, the 7th inst., written statements be submitted to the Commissioners by all who

objected to any part of the plans now under consideration, and stating specifically wherein said plans are considered defective or objectionable.

The hearing was then adjourned until Monday next, 7th inst., at 3 o'clock P. M., and the Commissioners adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Monday, April 7, 1884, at 3 o'clock P. M., for public hearing.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Corporation Counsel; Chief Engineer Church, and Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

Among the many persons present were Messrs. O. B. Potter, Robert L. Darragh, William H. Webb, Alexander M. Ross, George Hart, Thomas L. Feitner, Joseph Benedict and David B. Moses, and also Samuel McElroy, W. H. Grant and Theodore Weston, Civil Engineers.

For the information of all persons interested, the following course of proceeding in future hearings, was read:

" For the purpose of concluding the public hearings, required by Section 2 of Chapter 490 of the Laws of 1883, and commencing actual construction work at the earliest moment practicable, the Commissioners have determined upon the following course of procedure:

The plans of the route or line of the new Aqueduct, and the dimensions thereof, are practically settled upon, and the Commissioners being advised by the Counsel to the Corporation that the plans thereof, now displayed—and which have been on exhibition and under discussion here, for the past two months—and numbered respectively sheets 1 to 8, are such plans as the law requires, the hearing on that matter will first be taken up to-day, and testimony heard thereon; and upon Wednesday next, the 9th inst., at 3 o'clock P. M., the hearing thereon will be closed; and the plans finally adopted—subject, however, to such modifications as the Commissioners may hereafter deem necessary, for the more efficient carrying out of the provisions of the law.

The Commissioners will next receive all written communications that may be presented in relation to the Quaker Bridge Dam and Reservoir, the Muscoot Dam and Reservoir, and the Sodom Dam and Reservoir, and will take the testimony under oath of such engineers and experts as have already been subpœnaed or may now appear; and will then adjourn the hearing upon those matters from time to time.

The Commissioners are advised by their counsel that the plans, specifications and estimates for the construction of the above-named dams and reservoirs submitted to them by the Commissioner of Public Works—and which have been for some time past and are now here displayed—are such as the law requires.

The Commissioners therefore consider that the provisions of the law requiring them to give full opportunity to be heard to all persons interested—are being complied with.

And to preclude all misunderstanding, the Commissioners now give notice that the plans displayed are such general plans as the Commissioners are advised that the law requires—and such as are sufficient for a clear understanding of the dimensions and character of the proposed work, and for making approximate estimates of the cost thereof; and not the detailed working plans and specifications upon which contracts will be predicated, or the detailed property maps upon which proceedings will be taken to acquire title to lands."

The Commissioners were addressed by Messrs. Potter, Webb, Darragh, McElroy and others, and their statements fully recorded by the official stenographer.

Samuel McElroy, C. E., presented a written communication relating to the Quaker Bridge Dam and Reservoir, which he read, commented on, and delivered to the Commissioners; and it was referred to the Chief Engineer.

The hearing was then adjourned until the next day, Tuesday, 8th instant, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, April 8, 1884, at 3 o'clock P. M., for continuance of Public Hearing, commenced on the 19th of March last.

Commissioners present:

The Comptroller.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Corporation Counsel; Chief Engineer Church, and Chief Engineer Newton of the Department of Public Works.

The hearing was attended by Messrs. O. B. Potter, William H. Webb, Samuel McElroy, Alexander M. Ross, Joseph Benedict, Thomas L. Feitner, James E. Serrell, William H. Grant and E. B. Dorsey, C. E., and many others.

The hearing was opened in relation to the line or route of the Aqueduct from Croton Lake to the north side of the Manhattan Valley, and the dimensions of the conduit,

pursuant to the notice given yesterday. No one desired to be heard in relation thereto, save Messrs. Potter and Darragh, who wished to reiterate their opinion that the conduit should be of larger diameter; and that the passage of the Harlem River might possibly hereafter be modified to advantage.

The Commissioners therefore proceeded to the hearing upon the Quaker Bridge Dam, Muscoot Dam and Sodom Dam, and their respective reservoirs.

Addresses were made by Messrs. Potter, Darragh and Webb, and fully recorded by the official stenographer.

Mr. Darragh presented his approximate estimate of the cost of the Quaker Bridge Dam and Reservoir, and Muscoot Dam and Reservoir, amounting to $8,353,215, which was received, and referred to the Chief Engineer.

Samuel McElroy, C. E., then made a statement relating to dams and reservoirs, their mode of construction, strength, durability, etc., and gave his views as to their probable sanitary condition and effect; and agreed to furnish for the use of the Commission a written statement embodying the figures, quotations and references, which he had cited.

Edwin E. Glaskin, C. E., was next heard in opposition to the construction of the Quaker Bridge Dam; and the hearing was then adjourned until to-morrow, Wednesday, 9th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 9, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Counsel to the Corporation; Chief Engineer Church, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing, pursuant to adjournment from the day before. Many persons were present, including Messrs. O. B. Potter, R. L. Darragh, J. E. Serrell, George Hart, Joseph Benedict, Samuel McElroy, William H. Grant, E. E. Glaskin, Beer and Thomas L. Feitner.

The hearing upon the location of the aqueduct, and its dimensions was first in order; and the MAYOR asked whether any one present wished to be heard upon that subject, as this was the last day of said hearing; after which the plans now exhibited would be finally approved and adopted, pursuant to the public notice heretofore given to that effect.

No one responding, the public hearing upon the location and construction of said aqueduct was declared "closed."

The consideration of the Quaker Bridge Dam, the Muscoot Dam, the Sodom Dam, and the reservoirs was then taken up.

Upon that subject the Commissioners were again addressed by Messrs. O. B. Potter, Robert L. Darragh, Samuel McElroy, William H. Webb and E. E. Glaskin.

Mr. Potter presented an estimate of the cost of the proposed Quaker Bridge Dam, made by Mr. John J. Tucker, and based upon a statement of the quantities and kind of work furnished him by Mr. R. L. Darragh, as altered by Mr. Darragh from the approximate quantities and description submitted to this Commission by the Commissioner of Public Works, and amounting to a total of $8,814,824, which estimate was placed on file, and a copy furnished to the Chief Engineer.

Mr. Glaskin exhibited an incomplete plan for a portion of the proposed Quaker Bridge Dam, upon which he commented; and agreed to complete and deliver it to the Commissioners.

Mr. W. H. Grant was next heard in opposition to the Quaker Bridge Dam and Reservoir.

Mr. Potter demanded that plans and estimates of the roads and bridges to be built in case the Quaker Bridge Dam and Reservoir were constructed, should be furnished by the Commissioner of Public Works, for public inspection, and notified the Commissioners that he was preparing, and would submit to them, a statement of the available storage in other reservoirs than that of the proposed Quaker Bridge Reservoir, for the purpose of demonstrating that sufficient storage could be obtained without the last named reservoir.

All the proceedings were fully recorded by the official stenographer.

The public hearing was then adjourned until 3 o'clock P. M., on Saturday next, the 12th inst.

The regular order of business was then taken up, and the minutes of the 2d inst. were read and approved.

In pursuance to public notice heretofore given, the final adoption of the plans for the line or route of the new aqueduct and the dimensions of the conduit was then taken up, and the following resolutions were read :

Whereas, The Commissioner of Public Works has heretofore prepared and submitted to us plans for the construction of a new aqueduct or conduit for water from a point on the Croton River to a point in the City of New York, together with maps, specifications, estimates and particulars relating thereto, as required by

Section 2 of Chapter 490 of the Laws of 1883; and has also prepared and in like manner submitted to us other and further plans in the place of such portions of the original plans as were not by us approved; and

Whereas, All of the said plans have been open for inspection by the public, and full opportunity for a hearing respecting the same has been afforded to all persons interested, public notice of such hearing having been given;

Resolved, That of the plans so submitted by the Commissioner of Public Works, we do hereby approve and finally adopt the plan hereinafter more specifically described as covering the construction of such new aqueduct, viz., eight sheets, this day certified by us, and marked as follows:

I.—"Final Plan, Sheet No. I. From the northern ter-
"minus at Croton Lake to Station 351 (being the
"same point as Station 234+50 on Sheet II.), and
"marked thereon A—A."

II.—"Final Plan, Sheet No. II. From Station 234+50
"(being the same point as Station 351 on Sheet I.),
"and marked thereon A, A to Station 478+50."

III.—"Final Plan, Sheet No. III. From Station 478+50
"to Station 1040+50."

IV.—"Final Plan, Sheet No. IV. From Station 1040+50
"to Station 1140, and marked thereon B—B."

V.—"Final Plan, Sheet No. V. From Station 1140 to

"the southern terminus, near One Hundred and "Thirty-fourth street and Tenth avenue, New York "City."

VI.—"Final Plan, Sheet No. VI. Section of Aqueduct "in Rock Tunnel."

VII.—"Final Plan, Sheet No. VII. Section of Aqueduct "in Cut."

VIII.—"Final Plan, Sheet No. VIII. Section of Aque- "duct in Earth Tunnel."

—as the plan according to which the said aqueduct shall be constructed; subject to such changes or modifications as the Aqueduct Commissioners may from time to time deem necessary for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883.

Resolved, That the said plan so adopted be filed in this office, and a copy thereof, with our certificate of such adoption thereon, be transmitted to the Commissioner of Public Works, with a request to forthwith prepare and submit the six property maps required by Section 4 of said act, covering the area required for the construction of said aqueduct; the working shafts, adits, portals, dumping grounds, and roadways thereto, and other appurtenances of said aqueduct, according to the plan so approved.

Which resolutions were adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin. And

the Secretary was directed to transmit a copy of said resolutions to the Commissioner of Public Works, together with the copy of the plans called for by said resolutions.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and upon resuming the open session, adjourned until Saturday next, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 9, 1884.

Commissioners present:
The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Commissioner THOMPSON, to whom had been referred the matter of the compensation of Mr. Joseph P. Davis, as Consulting Engineer, made a verbal report, indicating the character and extent of the services which Mr. Davis would agree to render to the Commission in that capacity; whereupon, on motion of Commissioner THOMPSON, the following resolution was passed by the unanimous vote of the Commissioners:

Whereas, On the 7th of December, 1883 (in Executive Session), the Commissioners authorized the Chief Engineer "to consult with Mr. Joseph P. Davis, when

desirable, in relation to the location and construction of the new aqueduct, dams, etc.," and such consultations have heretofore been had with Mr. Davis; and

Whereas, The Commissioners desire hereafter to have the regular services of Mr. Davis as Consulting Engineer; now, therefore, it is

Resolved, That Joseph P. Davis be and he is hereby appointed Consulting Engineer of this Commission at the salary of six thousand dollars ($6,000) per annum, to date from the 1st of April, 1884; the payment of said salary, from that date, to be accepted as compensation for services heretofore rendered.

The matter of the employment of Mr. Hamilton Smith and his compensation as a Consulting Engineer, and also the future compensation of the Chief Engineer, were discussed; and on motion of Comptroller GRANT, both matters were referred to the Mayor, with power.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, April 12, 1884, at 3 o'clock P. M., for Public Hearing.

Commissioners present:

The Comptroller.

Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Corporation Counsel; Chief Engineer Church, and Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

Vice-President Dowd presided and opened the meeting for public hearing.

Among the persons present were Messrs. Fred. H. Cossitt, William H. Webb, Robert L. Darragh, O. B. Potter, James E. Serrel, Thomas L. Feitner, William H. Arnoux, David B. Moses, George Hart, William H. Grant and Samuel McElroy.

All the proceedings were fully recorded by the official stenographer.

Mr. Potter called as a witness Mr. C. H. Kelsey, an accountant, who had prepared, at request of Mr. Potter, "A computation of the amount of storage required in the Croton watershed." The statement was read and commented on by Mr. Kelsey; and was referred by the Commissioners to the Chief Engineer.

Mr. Potter also presented the following:

1. An estimate of the cost of the Quaker Bridge Dam and Reservoir; prepared by Messrs. Samuel McElroy, E. E. Glaskin and William H. Grant.
2. A pamphlet of W. J. McAlpine, C. E., on the "Projects for an increased supply of Water."
3. A protest signed by himself, William H. Webb, Robert L. Darragh, Thomas L. Feitner, Vice-President, and James E. Serrel, 2d Vice-President of the Taxpayers' Central Committee, and David B. Moses.

The first two communications were referred by the Commissioners to the Chief Engineer for examination, and report.

The last was ordered placed on file, and any legal questions involved therein to be submitted to the Counsel to the Corporation.

Mr. Robert L. Darragh presented a gross estimate made by himself of the cost of the Quaker Bridge Dam and Reservoir, land, land damages, roads and bridges, amounting to $12,000,000, which was ordered placed on file.

Mr. Samuel McElroy presented a brief of his statements made to the Commission at the hearing of the 8th inst.,

which was placed on file, and referred to the Chief Engineer.

A communication was received from Mr. Knut Forsberg, professional agronom, and placed on file.

The public hearing was then adjourned until further notice.

On motion of Commissioner SPENCER, the following resolution was passed unanimously:

Resolved, That the official position of "Principal Assistant and Executive Engineer," to which Mr. Alphonse Fteley was appointed on the 23d day of January, 1884, be hereafter designated and known as that of "Executive Engineer."

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 16, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD, and C. C. BALDWIN.

Also E. Henry Lacombe, Esq., Assistant Counsel to the Corporation; Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Stated Meeting of the 9th, and the adjourned meeting of the 12th, were read and approved.

Report of Committee of Finance and Audit.

The Committee of Finance and Audit reported their audit and approval, on 1st inst., of vouchers Nos. 127 to 137 inclusive, and also their selection—as authorized by the resolution of the Commissioners of March 19, 1884—of

Carlos F. Ferrer, as "Assistant Draughtsman," for the office of the Engineer of Construction, at a salary of $75 per month, to date from the 1st of April, 1884.

On motion of Commissioner THOMPSON, this action of the Committee was approved.

The Committee also reported the audit and approval on the 10th inst. of vouchers Nos. 138 to 150 inclusive; which was also approved by the Commissioners.

The Committee also reported the renting by authority of the resolution of March 19th, of the house and premises of the Estate of Susan Tracey Wilson at Tarrytown, N.Y. for the use of the Engineers Department for the term of three years, from the 1st of May next, at an annual rental of $1,500; which action was approved by the Commissioners, and the president was authorized to execute the lease therefor.

The Secretary presented a communication from Fordham Morris, Esq., as counsel of the N. Y. City and Northern Railroad Company, demanding on behalf of said company, further details relating to the property of said railroad company, which will be affected by the construction of the proposed reservoirs upon the Croton River; which communication was ordered to be placed on file.

Chief Engineer Newton presented an analysis of the computation of Mr. C. H. Kelsey, of the required storage in the Croton Basin, and pointed out important errors therein; which communication was ordered placed on file, and referred to the Chief Engineer.

Chief Engineer Church presented the following com-

munications for the consideration of the Commissioners, which were read, and ordered placed upon the file, viz.:

Report upon the preparation of specifications for the Aqueduct construction, and as to the different methods to be pursued in letting contracts for sinking the shafts, tunnels, etc., etc.

Report in relation to the proposed Quaker Bridge Dam, and especially with regard to the storage provided thereby, and its necessity.

Report in relation to "Modifications or changes in the plans," etc., for the new Aqueduct, in response to the resolution of the Commissioners of 20th of February, 1884, and submitting certain questions in relation thereto, for the consideration and determination of the Commissioners.

A statement of the flow of the Croton River during the drought of the years 1880–1881.

The Commissioners then signed and acknowledged the certificates upon the eight sheets of the plan of the new Aqueduct from Croton Lake to 134th street and Tenth avenue, New York, which were adopted by them on the 9th instant; and also upon the copies thereof for filing in the office of the Commissioner of Public Works.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session, and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 16, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH, and *Executive Engineer* FTELEY.

The minutes of the Executive Session of the 1st and 9th inst., were read and approved.

The Secretary then read for the information of the Commissioners, the letter of the President, dated April 12, 1884, to Mr. Joseph P. Davis, informing him of his appointment as Consulting Engineer of the Commission, and also the reply of Mr. Davis, dated April 15, 1884, accepting the appointment upon the terms and conditions

stated by the President, which reply the Secretary was directed to place upon the file.

The Secretary presented letters from several persons commending the selection of Mr. E. R. Meade, as an assistant to the Counsel to the Corporation, for the examination of titles of land to be acquired by the Commissioners; which were ordered placed on file with former communications upon that subject.

A communication was presented by Chief Engineer Church, dated April 2, 1884, nominating engineers for one transit and two leveling parties, and submitting a schedule of salaries to be paid them; and the number and cost of the instruments required for said parties; which communication was upon motion of the MAYOR, referred to the Committee of Finance and Audit for consideration and report to the Commissioners at their next Stated Meeting.

The Executive Session was then adjourned until Saturday next, the 19th inst., at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

NOTE.—Pursuant to adjournment from the meeting of the 16th inst. Commissioners Spencer, Dowd and Baldwin attended; but there being no quorum, as the other Commissioners were detained by official business, no meeting was held this day.

Saturday, April 19, 1884.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 23, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church; Executive Engineer Fteley, Consulting Engineer Davis, and Engineer of Construction Craven, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The minutes of the meeting of April 16th, 1884, were read and approved.

On motion of Commissioner DOWD, the following resolutions were adopted unanimously, viz.:

Whereas, Section 25 of chapter 490, of the Laws of 1883, provides that "the Commissioner of Public works

shall, from time to time, as may be necessary, prepare and submit to the Aqueduct Commissioners, and to the Counsel to the Corporation, forms of contracts and specifications; and of bonds for the faithful performance thereof, for the doing of the work, and the furnishing of the materials required to be done and furnished" by the approved plans for the construction of the Aqueduct; it is

Resolved, That to enable the Commissioners to contract for said work and materials at the earliest moment practicable, the Commissioner of Public Works be and he is hereby requested to prepare and submit to this Commission, said forms of contract and specifications, and of said bonds, as soon as the same can be prepared.

And to the end that the Aqueduct Commissioners may be enabled to enter into contracts for the sinking of the working shafts, or opening of adits, independently of the construction of the tunnel of the Aqueduct, should they hereafter deem that course expedient, the Commissioner of Public Works is requested to prepare and submit separate forms of contracts and specifications for sinking said shafts, or opening said adits.

Resolved, That the Commissioner of Public Works is hereby requested to have all the aforesaid forms prepared in consultation with the Chief Engineer of this Commission, and the Counsel to the Corporation; in order that the Commissioners, and the said Counsel to the Corporation, may act advisedly and promptly in

the approval or modification of said forms when formally submitted to them.

The COMMISSIONER OF PUBLIC WORKS presented, informally, for the consideration of the Commissioners, the map and plan, now nearly completed, for the modification of the line of the Aqueduct from the Croton Lake to the Pocantico River crossing, southeast of Scarborough, which was examined and discussed; and the modification approved by all the engineers present; whereupon the Commissioner of Public Works was requested to have said plan completed and ready for a public hearing on Wednesday, the 30th inst., and upon motion of Commissioner SPENCER, it was

Resolved, That a public hearing be given on Wednesday next, the 30th inst., to all persons interested in the proposed modification of the Aqueduct line heretofore adopted, from the present Croton Dam to a point on the lands of Henry Welcher, about 2,000 feet south of the place where the new Aqueduct will cross the Pocantico River; and that at the same time public hearing be given in relation to proposed modifications of said Aqueduct line through "Gould's Swamp." And upon the lands of Cyrus W. Field, and others, north of Ashford.

And the Secretary was directed to give public notice of said hearing.

The communication of Chief Engineer Church, of April 15th, 1884, presenting for the consideration and determination of the Commissioners, certain questions relating to the mode of constructing the new Aqueduct, was then taken up and considered.

1st. As to the admission or exclusion of ground water from the new Aqueduct.

The statement of the Chief Engineer, was, in brief, that "in view of the facts that the ground water is admitted into the present Croton Aqueduct, into the new Aqueduct just completed at Baltimore, and into others without detriment; that the similarity of the country forming the Croton water shed, and that through which the new Aqueduct will pass, warrants the belief that the ground water encountered upon the line of the new Aqueduct will be of substantially the same character as that of the Croton; that the risk of mineral impregnation, to any appreciable extent, is so slight, and that the economy of the admission of ground water is so great in the saving of masonry—the Chief Engineer, with the concurrence of the Consulting Engineer, recommends that the ground water be admitted into the conduit, unless so impregnated as to render its exclusion necessary," which recommendation was approved by the Commissioners; and it was

Resolved, That the permanent exclusion of any part of the ground water encountered in the construction of the new Aqueduct be left to the Chief Engineer; to be determined by his test of the quality of such water, and his opinion as to the necessity of its exclusion.

2d. The shape of the Aqueduct, and the recommendations of the Engineers of the Commission in relation thereto were next considered and approved; and it was

Resolved, That in the opinion of this Commission, the shape of the new Aqueduct, for a part of its length, can be advantageously modified from that of a circle

to that of a half circular arch, supported by curved sides and with a slightly curved invert floor; therefore it is

Resolved, That the Chief Engineer be and he is hereby authorized to modify the shape of the Aqueduct, as above described, wherever the formation, character, and condition of the surrounding material, and the pressure to be supported by the structure will warrant such change; provided, that in no case shall such change decrease the flowing capacity of the Aqueduct to a less quantity than that of a circle of fourteen feet inside clear diameter.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session, and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 23, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Consulting Engineer Davis, and Chief Engineer Newton of the Department of Public Works.

The reading of the minutes of the Executive Session of April 16th was deferred until the next meeting.

The Committee of Finance and Audit, to which was referred the communication of Chief Engineer Church, dated April 2, 1884, relative to the appointment of engineers, and purchase of instruments, for one transit and two leveling parties; presented a report thereon, dated

April 19, 1884; which was read and discussed by the Commissioners, and ordered placed on file; and upon motion of Commissioner THOMPSON the following resolutions were passed, viz.:

Resolved, That the report now presented by the Committee of Finance and Audit, to which was referred the communication of Chief Engineer Church, dated April 2, 1884, requesting the appointment of engineers, and purchase of instruments, for one transit and two leveling parties, be received and placed on file; and that the following persons be and they are hereby appointed to the positions designated, and at the salaries named below, viz.:

As "Assistant Engineers."

John B. McIntyre,
Robert H. Moore, and
Charles E. Jackson,

At a salary of one hundred and fifty dollars per month, each.

As "Transitman."

James P. Carson,

At a salary of one hundred and twenty-five dollars per month.

As "Levelers."

Andrew Rossi, and
Edward T. Johnston,

At a salary of one hundred and twenty-five dollars per month, each.

As "Chainmen" and "Flagmen."

Edward E. De Lancey,
Frederick W. Speyer,
Thomas D. Whistler,
Marcus Washburn,
Walter McCulloh,
Addis Emmet Carr,
Curtiss Millard,
J. L. Waring,
William Proctor,

At a salary of sixty dollars per month, each; all of whom are to be assigned to duty as soon as required by the Chief Engineer; who is hereby instructed to report to the Commissioners the date upon which each of the above-named persons enter upon the discharge of his duties.

Resolved, That the Chief Engineer is hereby authorized to purchase, for the use of the above-named engineers, the following instruments, at a cost not exceeding the amounts named, viz.:

One Transit	$225
Two Levels at $150	300
Two Rods at $16	32
One Compensating Chain	25
One 100′ Steel Tape	20
One " "	15
Two Range Rods at $2.50	5
Tools, Hammers, Chisels, etc.	50
Total	$672

The communication of Chief Engineer Church, dated March 28, 1884, in relation to the preparation of specifications for the Aqueduct construction work, and the different modes of letting contracts therefor, was then taken up and discussed with the Engineers, and it was

Resolved, That it is the sense of this Commission that the commencement of the actual construction work of the Aqueduct will be expedited by the letting of contracts for the sinking of the working shafts, or opening of adits separately, and in advance of the lettings for the tunnel work; and that separate forms of contract, specifications, and bonds for the letting of the shaft and adit work be prepared without delay; and that the right to enter upon the lands required at such shaft and adit openings, and to commence work thereon, be obtained by agreement with the owners wherever and as soon as it can be done.

Resolved, That the Committee of Finance and Audit be requested to confer with Messrs. Hugh N. Camp and Morris Wilkins, and employ them to negotiate with the owners of lands for the right of way, dumping grounds, etc., for the new Aqueduct from the Harlem River to Croton Dam, provided that a satisfactory agreement, as to compensation can be made with them.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 30, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH, and *Chief Engineer* NEWTON of the Department of Public Works.

The meeting was opened for public hearing upon the modification of the line of the Aqueduct from Croton Dam to the Pocantico River, pursuant to the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building.
NEW YORK, April 24, 1884.

To all whom it may concern :

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full

opportunity will be afforded them to be heard in relation to the plan or plans for a modification of the "Modified Hudson River" Line hitherto adopted for the new Aqueduct between the Croton Dam and a point on the Pocantico River, southeast of Scarborough; the said modification being more particularly described as follows:

Beginning at a point near and below the present Croton Dam, upon lands of the City of New York, and running in a direct line upon a course of south 22 deg. 42 min. 30 sec. west to a point near Station 410 of the said "Modified Hudson River Route," upon the lands of Henry Welcher, and about 2,000 feet south of the place where the said Aqueduct will cross the Pocantico River; the said modification of said Aqueduct line passing through and under lands understood to be owned or occupied by ——— Bushnell, Charles Culver, John McCormack, Jesse Ryder, Fernando Wood, Mrs. Horton, William Vail, David Chadeayne, Mrs. Vail, Nathaniel Eckert, Bartholomew Ryder, Joseph J. Pierce, heirs of Sorrel, John Whitson, Henry Ward, O. B. Potter, John W. Horton, S. N. Leggett, Henry Welcher, and by others to the Commissioners unknown.

Also in relation to proposed further modifications of the said modified Hudson River Route between Station 510 of said route—north of Glenville, upon lands of Theodore Benedict—southward across lands commonly known as "Gould's Swamp" to Station 590, on lands of Jay Gould or Patrick Cosgrove, and from Station 630 on lands of ——— Blois, at the shaft location near the Dublin Road (or "Mountain Avenue") to Station 750, near the Ashford Road, on lands of Cyrus W. Field or William Pringle.

All as shown upon the plans, maps and profiles in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room 78, Tribune Building, in the City of New York, on Wednesday, April 30, 1884, at 3 o'clock P. M., and upon subsequent days and times thereafter, to which said hearing may be adjourned, until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

The notice of the hearing was read by the Secretary, who stated that handbills of said notice had also been posted along the whole route of the proposed modification of the Aqueduct line.

The Mayor then requested any one present who desired a hearing, to address the Commissioners.

No one responded; and after awaiting an hour for others to appear, and none coming, Commissioner BALDWIN moved that the hearing, so far as the same relates to the above-described modification of the line from Croton Dam to the lands of Welcher, near the Pocantico River, be now finally "closed," which motion was carried unanimously.

On motion of Commissioner SPENCER, the hearing upon the modifications of the line at "Gould's Swamp," and upon lands of Cyrus W. Field was adjourned until Wednesday next, May 7th, at 3 o'clock P. M.

The regular order of business was then taken up, and

the minutes of the meeting of the 23d inst. were read and approved.

The Committee of Finance and Audit reported the examination and audit of Vouchers Nos. 151 and 160 inclusive, which action was, on motion of the MAYOR, approved by the Board.

The Secretary presented a communication from Silas Seymour, Esq., dated April 18, 1884, applying for the position of Consulting Engineer of the Commissioners; and also an application from Mr. John E. Lynch, dated April 18, 1884, for the position of General Inspector, or Superintendent of Masonry Construction Work, both of which were ordered to be placed on file.

On motion of Commissioner BALDWIN, the Commissioners then went into Executive Session; and upon resuming the open session

The COMMISSIONER OF PUBLIC WORKS, through Chief Engineer Newton, submitted a plan, marked "Exhibit U," for the modification of the line of the Aqueduct from the Croton Dam to the Pocantico River; which was laid over for consideration until to-morrow, May 1st.

Adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, April 30, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, Consulting Engineer Davis, Engineer of Construction Craven, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Executive Sessions of April 16th and 23d were read and approved.

Chief Engineer Newton submitted informally, for the information of the Commissioners, plans showing possible modification of the line of the Aqueduct over the lands of Cyrus W. Field, near Ashford; which plans he was requested to have completed and formally submitted, to en-

able the Commissioners to close the public hearing, and act upon said modification on Wednesday next, the 7th inst.

Chief Engineer Church presented a report, dated April 27, 1884, upon the general plan for organization of the Engineer Corps of the Commission—as requested by resolution of the Commissioners of January 9, 1884, which was read and ordered placed upon file, and spread upon these minutes, as follows:

" APRIL 27, 1884.

To the Honorable the Aqueduct Commissioners:

Gentlemen,—In view of the appointments recently made for surveying parties, and of the acceptance of the line of the Aqueduct from Croton River to High Bridge, and in accordance with the resolution of your Commission dated January 9, 1884, to the effect "that the Chief Engineer of the Commission be and he is hereby instructed to submit a plan for the organization of the Engineer force required for the service of the Commission," I have the honor to submit a sketch of the future organization of your Engineering Corps.

The three parties just appointed and which are expected to report next Wednesday for duty, will be entrusted with the special work of establishing final benches and monuments necessary for the accuracy of the general construction of the Aqueduct; their duties will cease as soon as this end is attained, and their members are expected to be transferred to the engineering parties which are to be organized for the superintendence of the construction.

The engineering work will be performed by several par-

ties, each of which will be under the immediate direction of a division engineer; each party will be composed of a division engineer, one assistant, one transitman, one leveler, two rodmen, and two laborers or axemen. It is expected that a party so organized will attend to the engineering and construction work for five shafts or generally ten headings.

In connection with these parties, and under the direct orders of the Division Engineers, inspectors of masonry will be required for each heading for day and night work. These inspectors will be expected to be present constantly during working hours, and it is probable that with these inspectors, one engineer will be wanted at each shaft on permanent duty.

The number of shafts not being finally established, the number of divisions wanted cannot be exactly determined, but it is expected that five divisions will be able to take care of the work between Croton Dam and Harlem Bridge. All the Division Engineers will be under the direct supervision of the Construction Engineer, with whom they will be in constant communication.

In addition to the field force, a corps of draughtsmen, under a head draughtsman, will prepare the plans and duplicates necessary for the field work.

Your Chief Engineer, and under him your Executive Engineer, superintend the whole of the work, and attend to designs of the various structures, which are elaborated in the draughting-room under their constant supervision, and after being submitted to your Commission, are distributed to the various parties for execution.

Owing to the necessity of constant communication with your Commission and with your office, the Chief and Executive Engineers will keep an office in this building, but

a large part of their time, especially in the case of the Executive Engineer, will be passed on the work, and at your engineering headquarters at Tarrytown, where the plans are to be elaborated, and where the Construction Engineer can conveniently report and obtain advice.

It is expected that one of the divisions can find room in your building at Tarrytown; the others will be located at convenient places on the line where houses can be procured.

In addition to the means of transportation necessary at headquarters, each division shall require a special team to enable it to cover its work without loss of time.

It is obvious that when the work is extended below Harlem River, some additional engineering force will be needed; and as soon as a decision is reached by your Commission in regard to the means of storage to be provided, a special force will be required for the purpose of construction.

Additional assistance will also be wanted from time to time, as the work requires, on special duties, or when some important structures, such as the main gate houses, will require constant engineering supervision.

Respectfully submitted,

B. S. CHURCH,
Chief Engineer."

Chief Engineer Church also presented a report, dated April 30, 1884, in response to the resolution of the Commissioners of February 27, 1884, in relation to the lands to be acquired for the new Aqueduct, and making a general recommendation as to the acquirement of the fee, or of an easement right; which report was, on motion of

Commissioner SPENCER, received and ordered placed upon the file of the Commission.

Chief Engineer Church made a verbal report in relation to the engineers, and others appointed by the Commissioners on the 23d inst. to positions in the engineer department, and stated that, of the engineers, Mr. John B. McIntyre has declined; that Messrs. Rossi and Carson had not been heard from; and that of the flagmen and chainmen appointed, Mr. Waring had accepted employment elsewhere.

Upon motion of Commissioner SPENCER, Mr. Alfred Craven was appointed to the position of Assistant Engineer, in place of John B. McIntyre, declined; at a salary of one hundred and fifty dollars per month.

And on motion of Commissioner SPENCER, the Chief Engineer was authorized to place Mr. Frederick H. Baldwin in the position assigned to Mr. Rossi, or to Mr. Carson, should either of them decline, or not accept before it becomes necessary to place them in the field; and at the same rate of compensation fixed for them.

Engineer of Construction Craven stated that another team of horses, set of harness and double wagon would be required for the transportation of the transit party; and on motion of Commissioner BALDWIN, Chief Engineer Church was authorized to purchase the horses, harness and wagon with the advice and concurrence of Commissioner Spencer.

Engineer Craven also stated that it would be necessary either to provide transportation for the two leveling parties to and from their homes, or to allow them a reasonable

amount to defray their expenses along the line; and recommended the latter as the better, and more economical arrangement. Whereupon, on motion of Commissioner SPENCER, the Chief Engineer was authorized to allow a reasonable and proper amount to cover said expenses, subject to the approval of the Committee of Finance and Audit.

Chief Engineer Church reported verbally upon the establishment of the permanent monuments and benches along the line of the new Aqueduct; whereupon, on motion of Commissioner DOWD, it was

Resolved, That the Chief Engineer is hereby authorized to purchase stone, steel, copper, cement and all other materials necessary for the establishment of monuments and benches along the line of the new Aqueduct, to an amount not exceeding $2,000, and to engage all labor necessary for the establishment of such monuments and benches.

The Secretary reported the selection of a desk for the use of Engineer Craven, at the Tarrytown office, at a cost of $55, and was authorized to purchase, and send it there.

The matter of the selection of agents for the purchase of the lands required for the new Aqueduct was then discussed; and action thereon deferred until to-morrow afternoon, at 3 o'clock P. M., to which time the Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, May 1, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also George P. Andrews, Esq., Counsel to the Corporation, Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Executive Session of April 30th were read and approved.

On motion of Commissioner SPENCER, the following resolution was passed unanimously:

Resolved, That the plan marked Exhibit "U" for the modification of the line of the new Aqueduct from a

point near the present Croton Dam to the Pocantico River, submitted by the Commissioner of Public Work to the Aqueduct Commissioners on the 30th day of April, 1884, and described as follows: "Beginning at a point near and below the present Croton Dam, upon lands of the City of New York, and running thence in a direct line upon a course of south 22° 42′ 30″ west to a point of intersection with the 'Modified Hudson River Route,' near Station 410 of said route, upon the lands of Henry Welker, and about 2,000 feet south of the place where the said Aqueduct will cross the Pocantico River," is hereby approved and adopted; and the said Commissioner of Public Works is requested to prepare at once the plans of said modification of said route for certification and filing by the Aqueduct Commissioners, and if possible to have said plans ready for such certification and filing by Wednesday next, the 7th inst.

On motion of Commissioner DOWD, the following resolution was passed unanimously, and the Secretary was directed to transmit a copy thereof to the Comptroller, viz.:

Whereas, In the estimation of the Aqueduct Commissioners, the further sum of two hundred and fifty thousand dollars ($250,000) will be required to defray the necessary and lawful expenditures of said Commissioners, it is

Resolved, That the Comptroller of the City of New York be and he is hereby requested to raise the said sum of two hundred and fifty thousand dollars ($250,000) upon bonds of the City of New York, in conformity with

the requirements of Section 32, Chapter 490, Laws of 1883, of the State of New York, for the uses and purposes of the Aqueduct Commissioners, as set forth in said chapter and section of said laws.

The COMMISSIONER OF PUBLIC WORKS presented forms of contract, specifications and bond, marked Exhibit "V," for the sinking of the shafts upon the line of the new Aqueduct, in response to the request of the Commissioners by the resolution of April 23d, which, on motion of Commissioner SPENCER, were received and referred to the Chief Engineer for examination and report upon the specifications and technical provisions therein contained.

On motion of the MAYOR, the manner and form of preparing the six property maps called for by Section 4, of Chapter 490, Laws of 1883, was referred to the Commissioner of Public Works and the Counsel to the Corporation, and they were requested to report thereon, if possible, on Wednesday next, the 7th inst.

Chief Engineer Church presented a communication, dated May 1, 1884, in relation to the procurement of the lands required for the shafts, etc., upon the line of the Aqueduct, from Croton Dam to the Pocantico, at the earliest time practicable; those shafts being the deepest on the line, and requiring the longest time to sink; which communication was read, and ordered placed on file.

On motion of Commissioner DOWD, it was unanimously

Resolved, That the oral offer of Messrs. Hugh N. Camp and Morris Wilkins, to procure all the fee and easement rights upon the lands required for the new

Aqueduct, its shafts, portals, adits, dumping grounds and roadways thereto, from the Harlem River, near the High Bridge, to the Croton Dam, at the compensation of twenty-five hundred dollars each, be accepted, and that the Secretary notify them thereof.

Commissioner SPENCER called attention to the employment of suitable persons to take charge of the dwelling house, office and premises at Tarrytown, rented for the Engineer Department; and on motion of the MAYOR, the matter was referred to the Committee of Finance and Audit to consider and report upon.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 7, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Chief Engineer* NEWTON of the Department of Public Works.

The meeting was opened for public hearing upon the proposed modifications of the line of the Aqueduct between Stations 510 and 590 on lands known as "Gould's Swamp," and between Stations 630 and 750 over lands of Field and others, pursuant to the public notice of April 24, 1884, and of the adjournment of said hearing from April 30, 1884.

No one present wishing to be heard, the said hearing

was, on motion of Commissioner SPENCER, adjourned until the next Stated Meeting.

The regular order of business was then taken up and the minutes of the Stated Meeting of April 30th were read and approved.

The Committee of Finance and Audit reported the examination and audit of vouchers No. 164 to 169, inclusive.

On motion of the MAYOR, the said vouchers were approved and certified to the Comptroller.

Commissioner DOWD offered the following resolutions:

Whereas, The Commissioner of Public Works, heretofore, from time to time, submitted to the Aqueduct Commissioners plans for the location and construction of the new Aqueduct from the north side of Manhattan Valley to the Croton Dam, which plans were formally approved and finally adopted by the Commissioners, and filed in the office of the Aqueduct Commissioners and with the Commissioner of Public Works, on the 9th day of April, 1884; subject to such changes or modifications as the said Commissioners may from time to time deem necessary for the more efficient carrying out of the provision of Chapter 490 of the Laws of 1883; and

Whereas, The Commissioner of Public Works, upon request of the Aqueduct Commissioners, has since prepared and submitted to them a plan for the modifica-

tion of that portion of the line so adopted between Croton Dam and the Pocantico River, which plan was informally approved by the Commissioners, and a public hearing given thereon on the 30th day of April, 1884, due notice of said hearing having been given; it is hereby

Resolved, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883, the plan submitted to the Aqueduct Commissioners by the Commissioner of Public Works on the 30th of April, 1884, and marked Exhibit U, for the modification of the line of the new Aqueduct, as follows: Beginning at a point upon the lands of the City of New York, near the Croton Dam, in the Town of Yorktown, in the County of Westchester, which point is marked "Station 490" upon said plan—Exhibit U—and thence running in a direct line upon a course of south 22° 42′ 30″ west to an intersection with the "Modified Hudson River Route" upon the lands of Henry Welker, in the Town of Mount Pleasant, and County of Westchester, at, or about, the point described as "Station 410" upon "Final Plan Sheet No. 2," adopted and filed April 9, 1884; and said point of intersection being marked "Station 141+58.4" upon said plan—Exhibit U—be and the same is hereby approved and finally adopted as the plan for the location and construction of the new Aqueduct, upon that portion of the line hereinabove described.

Resolved, That the said plan so adopted be filed in this office, and a copy thereof, with our certificate of such adoption thereon, be transmitted to the Commissioner

of Public Works, with a request to forthwith prepare and submit the six property maps required by Section 4 of said act, covering the area required for the construction of said Aqueduct; the working shafts, adits, portals, dumping grounds, and roadways thereto, and other appurtenances of said Aqueduct, according to the plan so now approved, said plan being "final plan Sheet No. 9."

Which resolutions were adopted by the affirmative vote of all of the Commissioners, and the Secretary was directed to transmit a copy thereof to the Commissioner of Public Works, and to have the proper certificates of the final adoption of said plan affixed thereon.

The Secretary presented forms of agreement with owners of the lands where the fee and where the easement right is required for the new Aqueduct, dams, reservoirs, etc., etc., which forms were directed to be submitted to the Counsel to the Corporation for approval; and when approved, 500 copies thereof to be printed.

On motion of Commissioner BALDWIN, the Commissioners then went into Executive Session, and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 7, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Chief Engineer* NEWTON of the Department of Public Works.

The minutes of the Executive Session of April 30th were read and approved.

The Committee of Finance and Audit caused to be read from the minutes of their meeting of May 6, 1884, the statements made to the Committee by Chief Engineer Church, and the following resolutions of the Committee in relation thereto:

"*Resolved*, That the Committee of Finance and Audit recommend the increase of the salary of Mr. Cæsar Leonhard to one hundred and twenty-five dollars per month, to date from May 1, 1884, and that the same be reported to the Commissioners for approval."

On motion of the MAYOR, this recommendation was approved and the salary of Mr. Leonhard was fixed at one hundred and twenty-five dollars per month, to date from the first of May, 1884.

"*Resolved*, That the Committee of Finance and Audit recommend to the Commissioners Mr. John M. Wolbrecht for the position of Transitman, at the same rate of compensation named for Mr. Carson."

On motion of Commissioner THOMPSON, this recommendation of the Committee was approved, and Mr. John M. Wolbrecht appointed to the position of Transitman, at a salary of one hundred and twenty-five dollars per month, the date of his entrance upon the discharge of his duties to be reported to the Commissioners by the Chief Engineer.

Chief Engineer Church reported that the large transit instrument now in use by the Department of Public Works could not be obtained for the use of the Commissioners, and asked that authority be given to purchase one; and also another level and rod; and on motion of Commissioner SPENCER, the Chief Engineer was authorized to send Engineer Craven to Philadelphia to select a suitable line transit, at a cost of not exceeding $500, and he was also authorized to purchase another level and rod—all subject to the approval of the Commissioners.

On motion of Commissioner THOMPSON, this action of the Committee of Finance and Audit was approved.

On motion of Commissioner SPENCER, Mr. James B. Taylor was selected to take charge of the Engineers' headquarters and premises at Tarrytown, at a compensation of $83.33 per month, in accordance with a resolution of the Commissioners of the 1st inst. (Ex. Sess.), and that the same be reported to the Commissioners for approval.

This action of the Committee of Finance and Audit was also approved by the Commissioners.

The Secretary presented a letter from Messrs. Hugh N. Camp and Morris Wilkins, accepting the appointment as agents to purchase the lands required for the new Aqueduct from the Harlem River to Croton Dam, and stating the terms and conditions of their employment; which was read and ordered to be spread upon the minutes of this meeting; and the Secretary was directed to notify Messrs. Camp and Wilkins of the acceptance of their proposition by the Commissioners.

The letter is as follows:

"55 LIBERTY ST., NEW YORK, May 3, 1884.

To the Hon. the Aqueduct Commissioners,
City of New York.

Dear Sirs,—We beg to acknowledge the receipt of your favor of 2d inst., saying you had decided to avail yourselves of our services for the procurement of the fee and

easement rights required for the new Aqueduct, its shafts, portals, roadway, etc.

We will do this work, so far as we can accomplish the same, and pay our own expenses, for the sum of $5,000 (five thousand dollars), and charge no brokerage or commissions of any kind or nature to the owners of the land, but will act solely as your agents for your interests, and the interest of the city.

Your department to furnish us with full maps and descriptions of the property desired and such other necessary information as may be in your possession.

It being understood that if after a few weeks we find in consequence of unreasonable demands of owners or otherwise, little or nothing can be accomplished, we may drop the matter, receiving no compensation for services, but may be reimbursed for our actual expenses at your discretion.

This we believe embodies the whole subject.

We thank you for the confidence placed in us, and with assurance that it shall not be abused,

We are,
Yours truly,
(Sgd.) HUGH. N. CAMP,
MORRIS WILKINS."

The COMMISSIONER OF PUBLIC WORKS presented a letter from the Counsel to the Corporation, dated May 7, 1884, in relation to the "parcels" to be shown upon the property maps (as required by Section 4, Chapter 490), and stated that the said property maps would be completed in accordance with said letter, of which the Secretary was directed to make and file a copy.

Chief Engineer Church asked that four more rodmen and one axeman be appointed for the parties now in the field, and the following persons were selected by the Commissioners, and appointed to these positions:

Harry R. Wheeler,	Rodman;
Isaac H. Baxter,	"
Arthur B. Satterlee,	"
George A. Sutter,	"
Timothy Bowen,	Axeman;

each at a salary of sixty dollars ($60) per month; the Chief Engineer to report to the Commissioners the date of their entrance upon the discharge of their duties.

Chief Engineer Church made a verbal statement to the Commissioners in relation to making further borings upon the line of the Aqueduct between the Harlem River and Ashford Station, and recommend that said borings be done by contract. After discussing the matter, the Chief Engineer was directed to obtain further information in relation to the amount and probable cost of said borings, and to report the same to the Commissioners at a future meeting.

The matter of keeping a correct record of all instruments, implements, machinery, horses, wagons and other property purchased for the use of the engineers and others in the employment of the Commissioners was then considered; and on motion of Commissioner BALDWIN, the Chief Engineer and the Secretary were directed to prepare and submit to the Committee of Finance and Audit the necessary forms and blanks for keeping an exact inventory and account of all such property; and receipts to be re-

quired from all engineers and employees of the Commissioners to whom such property may be intrusted.

The Executive Session then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—On May 14, 1884, at the regular hour of meeting, Commissioners Spencer and Dowd attended; and at 3.30 P. M., no quorum being present, the Stated Meeting was then adjourned until Wednesday next, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 21, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, and WILLIAM DOWD.
Also *Executive Engineer* FTELEY and *Chief Engineer* NEWTON of the Department of Public Works.

No one appearing who wanted to be heard, the public hearing upon the modification of the line of the Aqueduct over the Gould Swamp lands, and the lands of Cyrus W. Field and others, near Ashford, was adjourned until Wednesday, the 28th inst.

The regular order of business was then taken up, and the minutes of the Stated Meeting of May 7th were read and approved.

The Committee of Finance and Audit reported the examination and audit of the following vouchers for expendi-

tures of the Commissioners, viz.: Nos. 170 to 181, inclusive, which were approved by the Commissioners and certified to the Comptroller.

The said Committee also reported their action in substituting two smaller instruments in lieu of the one line transit authorized to be purchased by resolution of the Commissioners of May 7th inst.; which action was, on motion of the MAYOR, approved by the Commissioners.

The following applications for positions in the Engineer's Department were received and referred to the Chief Engineer, viz.:

John McGlone, for Assistant Engineer.
George W. Vandewater, for Rodman or Axeman.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session for the consideration of the details of the forms of contracts, specifications and bonds for the sinking of the working shafts for the Aqueduct, and of the reports of the Chief Engineer upon detail matters of survey, and exploration of the line of the Aqueduct from South Yonkers to the Manhattan Valley.

Upon resuming the open session, the Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 21, 1884.

Commissioners present:
The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Executive Engineer* FTELEY and *Chief Engineer* NEWTON of the Department of Public Works.

The minutes of the Executive Session of May 7, 1884, were read and approved.

A letter was received from the Commissioner of Public Works, dated May 20, 1884, in relation to the changes in the forms of contract and specifications for sinking shafts —"Exhibit V"—submitted by the Commissioner on the 1st inst., which letter was read, ordered to be placed on file, and referred to the Chief Engineer for report.

In the absence of Chief Engineer Church, Executive

Engineer Fteley made a verbal report to the Commissioners in relation to the above-named forms of contracts and specifications—"Exhibit V"—and pointed out some changes to be made therein, at the suggestion of the Chief Engineer of the Department of Public Works, and some at the suggestion of the engineers of the Commissioners. The matter of the form of specifications was, on motion of Commissioner SPENCER, then referred back to the said Chief Engineers, with the request that they confer and agree upon details of the changes in question; and report to the Commissioners at their next meeting.

Chief Engineer Church submitted a report dated May 20, 1884, in relation to further borings upon the line of the Aqueduct between the Harlem River and Ashford Station, in compliance with the request of the Commissioners of May 7th inst. After discussing the matter, the report was referred to the Committee of Finance and Audit for consideration; and the Chief Engineer was requested to prepare and furnish before Tuesday next, for the use of said Committee, a statement of the borings already made by the engineers of the Commission, and the cost of the same per linear foot.

The Chief Engineer also submitted reports dated May 14th and 20th inst., of the work already done by the field parties recently appointed by the Commissioners; and recommending the formation of an additional party, composed of one engineer and four sub-assistants, for the purpose of making other preliminary surveys, and also the purchase of the necessary field instruments for such party.

Executive Engineer Fteley also stated that an extra transit would be required for use, from time to time, by

the Engineer of Construction and others, and asked authority to order one. The whole matter was, on motion of the MAYOR, referred to the Committee of Finance and Audit, with power.

The diagrams prepared by the Chief Engineer of the Department of Public Works, showing the tinting to be used to designate, upon the property maps, the nature of the right or title to be obtained in or upon the lands to be acquired for the new Aqueduct, was examined by the Commissioners; and was referred to the Chief Engineer to approve and to be filed in this office.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 28, 1884, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The meeting was opened for public hearing upon the modification of the line of the Aqueduct over the Gould Swamp lands, and the land of Cyrus W. Field and others, pursuant to adjournment from May 21st inst.; and no one appearing who desired to be heard in relation thereto, the said hearing was further adjourned until Wednesday next, June 4th.

The regular order of business was then taken up, and the minutes of the meeting of 21st inst. were read and approved.

The Committee of Finance and Audit reported the examination and audit of the bills included in Vouchers

No. 182 to 194; which vouchers were then approved, and ordered certified to the Comptroller for payment.

The Secretary reported a requisition from the Chief Engineer for a safe for use at the Engineers' headquarters at Tarrytown for the preservation of the records and valuable papers of that department; and also the need of a safe for the office of the Commissioners, for the preservation of the books and other records of the Commission. On motion of the COMPTROLLER, the matter was referred to the Committee of Finance and Audit, with power.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session for consultation with the engineers upon questions of detail of surveys and explorations, and of the grade of the new Aqueduct; and upon resuming the open session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, May 28, 1884.

Commissioners present:

The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Executive Session of May 21st were read and approved.

The Committee of Finance and Audit made the following recommendations:

In relation to the reports of the Chief Engineer dated May 14th and 20th, recommending the formation of an additional party, composed of one Assistant Engineer and four sub-assistants, for the purpose of making further

preliminary surveys, and the purchase of the necessary field instruments for said party; and also the purchase of an extra transit instrument; the Committee recommend the appointment of said field party, to consist of one Assistant Engineer and four rodmen or chainmen, and they recommend the appointment of the following persons:

Charles S. Gowen,

As Assistant Engineer, at a compensation of $125 per month.

Fred. B. Rogers,
Robert L. Morris,
John M. Stewart, and
Edward Larned, Jr.,

As Rodmen or Chainmen, at a compensation of $60 each per month.

The Chief Engineer to report to the Commissioners the dates upon which said persons enter upon the discharge of their duties.

And they recommend the purchase of the following instruments at a cost not to exceed the amount named, to wit:

One extra transit with adjustments	$250
One engineer's transit	230
One level	150
One rod	16
Six 50-foot tape measures at $8 each	48
Making	$694

Upon the report of the Chief Engineer that an Assistant ughtsman is also required, and that a competent per-

son has been named by Executive Engineer Fteley, the Committee recommended his appointment, viz.:

Leon G. Ghetti, at a salary of $50 per month.

On motion of the COMPTROLLER, all of these recommendations were approved by the Commissioners and the appointments of the persons above named were made, at the compensation stated; and the Chief Engineer was authorized to purchase the instruments described at not exceeding the cost above stated.

In relation to the report of the Chief Engineer of the 20th of May, 1884, upon the subject of further rock borings to be made on the Aqueduct line, between the Harlem River and Ashford Station, the Committee recommend that a contract be made with the American Diamond Rock Boring Company upon the terms set forth in their communication of the 5th of May; with such amendments as the Chief Engineer has suggested, and with the reservation of an option to have such part of said borings as the Commissioners may elect, made south of the Harlem River.

This recommendation of the Committee was, on motion of Commissioner BALDWIN, approved by the Commissioners, and the making of said contract referred to the Committee of Finance and Audit, with power; and the Chief Engineer and Secretary were directed to prepare and submit to the Committee of Finance and Audit the necessary form of contract with the American Diamond Rock Boring Company for making said borings.

A letter of Engineer of Construction Craven to Chief Engineer Church, dated May 23, 1884, in relation to the purchase of another pair of horses, wagons and harness, was submitted by the Secretary, and the matter was referred to the Committee of Finance and Audit, with power.

Chief Engineer Church presented a report, dated May 27, 1884, in relation to the proposed modification of the line of the Aqueduct through "Gould's Swamp," which was read, and Chief Engineer Newton of the Department of Public Works exhibited a draft of the preliminary survey of this modification, made in response to the request of the Commissioners by resolution of April 1, 1884.

The matter was discussed with the engineers present, all of whom concurred in the opinion that it was desirable to avoid the "Gould Swamp," and recommend that further examination be made of the proposed modification. Formal action thereon was deferred until the next Stated Meeting of the Commissioners.

Chief Engineer Church presented a report, dated May 28, 1884, in relation to the establishment of the final grade of the new Aqueduct from Croton Dam to the reservoir in Central Park. The report was read and discussed with the engineers, and was, on motion of Commissioner SPENCER, laid on the table; and the Secretary was directed to confer with the Counsel to the Corporation, and obtain his opinion whether the changing of the grade so far as the same has been described by the profile upon the final plan sheets heretofore adopted and filed by the Commissioners, is such a modification of the "Plans"

for the construction of the said Aqueduct as to require its submission to a public hearing.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—On June 4, 1884, at the regular hour of meeting, the Mayor, the Comptroller, and Commissioner Spencer attended; and at 3.30 o'clock P. M., no one appearing who wished to be heard in relation to the proposed modification of the Aqueduct line upon the lands at Gould's Swamp and of Cyrus W. Field and others, the hearing was adjourned until Wednesday next, June 11th; and no quorum of the Commissioners being present, the Stated Meeting was adjourned until Friday next, the 6th instant, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, June 6, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Stated Meeting of May 28th were read and approved.

The Committee of Finance and Audit reported the audit of bills as per vouchers Nos. 198 to 203, inclusive, which vouchers were approved and ordered to be certified to the Comptroller.

A communication was received from the Commissioner of Public Works, dated June 6, 1884, informing the Com-

missioners of the receipt and filing in his office of the "Final Plan Sheets Nos. 1 to 9, inclusive, of the new Aqueduct," transmitted to him by the Commissioners, as required by Section 2 of Chapter 490 of the Laws of 1883; which communication was read and ordered placed upon file.

The Commissioner of Public Works next submitted forms of contract, bonds and special specifications (marked Exhibit "V") for sinking shafts for the new Aqueduct, in conformity with the modifications concurred in by the engineers of the Commission, and the Chief Engineer of the Department of Public Works, as requested by the resolution of the Commissioners (in Ex. Sess.) May 21, 1884; which communication and exhibit were ordered placed on file; and on motion of Commissioner SPENCER, the Secretary was directed to submit said forms to the Counsel to the Corporation for his approval thereof, "as to form," in accordance with Section 25 of Chapter 490 of Laws of 1883.

In compliance with the request of the Commissioners by resolution of April 9, 1884, the Commissioner of Public Works presented the following property maps upon the line of the new Aqueduct, known as the "Modified Hudson River Route" (Exhibit W), from the Harlem River to the north line of the city (Exhibit X), from the north line of the city to a point on the lands of James Pyle, north of Ashford Station (on the New York City and Northern Railroad), whereupon, on motion of Commissioner SPENCER, it was

Resolved, That the above-named property maps, this day submitted by the Commissioner of Public Works, in

accordance with Section 4 of Chapter 490 of the Laws of 1883, be and the same are hereby approved; and the Secretary is hereby directed to have the same duly certified by the Aqueduct Commissioners, as required by said section of said act, and to transmit said maps, so certified, to the Counsel to the Corporation, with the request that he cause the same to be filed in the office of the Register of the County of New York and the Register of the County of Westchester respectively, as required by Section 5 of said act.

On motion of Commissioner BALDWIN, it was

Resolved, That the Commissioner of Public Works be and he is hereby requested to furnish, as soon as practicable, to the Aqueduct Commissioners, forms of contract and bonds for the construction of the tunnel of the new Aqueduct, from the Croton Dam to the Central Park Reservoir, in accordance with Section 25 of Chapter 490 of the Laws of 1883, as called for by resolution of April 23, 1884.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session for consideration of the establishment of the final grade elevation of the conduit of the new Aqueduct, and the matter of the procurement of fee and easement rights upon the line of the Aqueduct; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, June 6, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, Chief Engineer Newton of the Department of Public Works, and E. Henry Lacombe, Esq., Counsel to the Corporation.

The minutes of the Executive Session of May 28, 1884, were read and approved.

The Secretary reported (verbally) that, in obedience to the directions of the Commissioners of May 28th ult., the Counsel to the Corporation had been consulted in relation to the matter of the elevation of the grade of the Aqueduct conduit, and was present to confer with the Commissioners upon the subject.

The matter was then discussed with the engineers and the Counsel to the Corporation, and was laid over for future action.

A communication was presented by the Secretary from the Counsel to the Corporation, dated June 5, 1884, in relation to the description of the easement rights to be obtained upon the line of the new Aqueduct, and of the requisite covenants of grantors for the protection of the same; which was read and ordered to be placed on file.

The Counsel to the Corporation then gave the Commissioners his views, at length, as to the safest and most expeditious course to be pursued to obtain the required right of way for the new Aqueduct; and on motion of Commissioner Baldwin, it was

Resolved, That it is the sense of this Commission that the procurement of the required fee and easement rights upon the line of the new Aqueduct should be obtained by the legal proceedings set forth in the act; and to that end that the Counsel to the Corporation be requested to commence such proceedings as soon as practicable, and that he be furnished the necessary maps and other requisites therefor, with as little delay as possible.

The lands upon the proposed modifications of the line of the Aqueduct at "Gould's Swamp" and on lands of Cyrus W. Field and others having been visited and examined by the Commissioners on the day previous, the matter of said modifications was discussed with the engineers, and laid over until the next meeting; and on motion of Commissioner THOMPSON, it was

Resolved, That the engineers are requested to prepare, in writing, their opinions and reasons therefor, in favor of, or against, making said modifications, and to submit the same to the Commissioners at their next meeting.

And on motion of Commissioner THOMPSON, it was

Resolved, That the engineers are hereby requested to hereafter prepare and submit all recommendations or reports upon matters of importance, in writing, in order that the Commissioners may be better able to consider and to act upon such matters.

Chief Engineer Church presented a statement, dated June 4, 1884, in relation to the erection of observatory towers upon the line of the new Aqueduct, to facilitate the surveying operations, and save damages to property; which statement was read, and, on motion of the MAYOR, was referred to the Committee of Finance and Audit, with power.

The Chief Engineer also presented a communication from Engineer of Construction Craven, dated June 2, 1884, in relation to changing the large drill machine No. 4 ("Drill D") from a 4-inch to a 2-inch bore, which matter, on motion of the MAYOR, was also referred to the Committee of Finance and Audit, with power.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 11, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Executive Engineer Fteley, Chief Engineer Newton of the Department of Public Works, and E. Henry Lacombe, Esq., Counsel to the Corporation.

The meeting was opened for public hearing on the proposed modification of the line of the Aqueduct across the lands known as "Gould's Swamp" and upon the lands of Cyrus W. Field and others, in accordance with the public notice of April 24, 1884, and the adjournment of said hearing from time to time until this date; and the map of said modifications (marked "Exhibit Y") was formally submitted by the Commissioner of Public Works to the Aqueduct Commissioners, in a communication dated this [illegible] said communication was ordered placed on file.

A communication dated June 10, 1884, from Executive Engineer Fteley in relation to the above-named modifications was then read, and ordered to be placed on file.

No one appearing who desired to be heard in relation to said modifications, it was, on motion of Commissioner SPENCER,

Resolved, That the said hearing, as far as the same relates to a modification of the line of the Aqueduct between Stations 630 and 750, as shown upon the Final Plan Sheet No. 3, adopted and filed by the Commissioners on the 9th day of April, 1884, in the manner in which said modification is shown upon the plan "Exhibit Y," be and the same is now finally "closed;" and

Resolved, That the said hearing in relation to the proposed modification upon the lands known as "Gould's Swamp" be adjourned until Wednesday next, the 18th inst.

Commissioner DOWD then offered the following resolutions:

Whereas, The Commissioner of Public Works, heretofore, from time to time, submitted to the Aqueduct Commissioners plans for the location and construction of the new Aqueduct from the north side of Manhattan Valley to the Croton Dam, which plans were formally approved and finally adopted by the Commissioners, and filed in the office of the Aqueduct Commissioners and with the Commissioner of Public Works on the 9th day of April, 1884, "*subject to such changes or modifications as the said Commissioners may from*

time to time deem necessary for the more efficient carrying out of the provisions of Chapter 490 *of the Laws of* 1883;" and

Whereas, The Commissioner of Public Works, upon request of the Aqueduct Commissioners, has since prepared and submitted to them a plan for the modification of a portion of the line of the Aqueduct between Station 630 and Station 750, of Final Plan Sheet No. 3, adopted and filed by the Commissioners on the 9th day of April, 1884, and public hearings having been given thereon from time to time from April 30, 1884, to this date, and of which hearings due notice has been given, it is hereby

Resolved, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883, that part of the plan submitted to the Aqueduct Commissioners by the Commissioner of Public Works, for the modification of the line of the new Aqueduct, and marked "Exhibit Y," which is described as follows, viz.:

Beginning at a point on said plan ("Exhibit Y") upon the lands thereon represented to belong to "Henry Dressler," and which point is Station 635 of "Final Plan Sheet No. 3," on lands thereon represented to belong to "John Dressler;" and running thence southerly across and upon the easterly side of the Sawmill River, as shown by a blue line on said plan ("Exhibit Y"), to a point of intersection with the line heretofore adopted; which point of intersection is situated between the highways known as "Daisy Avenue" and the "Ashford Road," at Station

749+25 of said "Final Plan Sheet No. 3" (the said point of beginning being now designated on said plan "Exhibit Y" and on said "Final Plan Sheet No. 3" by a vertical line marked C—C; and the said point of intersection being now designated on said Exhibit Y and on said Final Plan Sheet No. 3 by a vertical line marked D—D), be and the same is hereby approved and finally adopted as the plan for the location and construction of the new Aqueduct, upon that portion of the modified line thereof herein described, said plan being "Final Plan Sheet No. 10."

Resolved, That the part of said plan so adopted be filed in this office, and a copy thereof, with our certificate of such adoption thereon, be transmitted to the Commissioner of Public Works, with a request to forthwith prepare and submit the six property maps required by Section 4 of said act, covering the area required for the construction of said Aqueduct, the working shafts, adits, portals, dumping grounds and roadways thereto, and other appurtenances of said Aqueduct, according to the modified plan so now approved.

Which resolutions were adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer and Dowd.

The Committee of Finance and Audit reported the examination and audit of vouchers Nos. 204 to 215, inclusive; which vouchers were, on motion of the MAYOR, approved and ordered certified to the Comptroller for payment.

The Committee of Finance and Audit also reported that they had authorized the Chief Engineer to have telephones placed in the office of the engineers at Tarrytown, and in the house of the Chief Engineer at Sing Sing, and of the Engineer of Construction at Irvington; which action was, on motion of the COMPTROLLER, approved by the Commissioners.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and on resuming the open Session adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 11, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Executive Engineer Fteley; Chief Engineer Newton of the Department of Public Works, and E. Henry Lacombe, Esq., Counsel to the Corporation.

Messrs. Camp and Wilkins, the agents to procure right of way along the line of the Aqueduct, made a verbal report of their work; and made several suggestions for the consideration of the Commissioners in relation to the value and procurement of said right of way lands.

The matter of the modification of the line of the Aqueduct upon "Gould's Swamp" lands, as shown upon "Exhibit Y," was then discussed; and on motion of Commissioner THOMPSON, it was

Resolved, That for the information and guidance of the Commissioners in determining the advisability of said

modification, as shown upon said "Exhibit Y," the engineers of the Commissioners and of the Department of Public Works are requested to submit to the Commissioners at their next meeting a detailed report upon said modifications; stating, at length, the reasons which govern their recommendation in favor of making such modification, or against it.

Corporation Counsel Lacombe then gave the Commissioners his views, at length, with regard to the preparation and filing of the property maps, and the commencement of the proceedings based thereon for the appointment of Commissioners of Appraisal, and recommended the filing of the map for the lands in the City and County of New York, and commencement of proceedings thereon at once; and the retention of the section maps of the lands in Westchester County until maps of the whole line in that county can be filed, and included in one proceeding for the appointment of the Commissioners of Appraisal in that county.

The matter of the elevation of the grade of the conduit of the new Aqueduct was then taken up, and after discussion was, on motion of Commissioner SPENCER, laid upon the table.

Executive Engineer Fteley then requested authority to employ another assistant Draughtsman for work now necessary to be done in the Draughting Department, which matter was, on motion of the COMPTROLLER, referred to the Committee of Finance and Audit, with power.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 18, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Consulting Engineer Davis; also Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing upon the proposed modification of the line of the Aqueduct over the "Gould's Swamp" and other lands, pursuant to the notice of April 24, 1884, and the adjournments of said hearing from time to time to this date; and no one appearing who desired to be heard in relation to said modification, the said hearing was, on motion of Commissioner SPENCER, finally "closed."

The regular order of business was then taken up, and the minutes of the Stated Meeting of June 11th were read:

Commissioner Baldwin having been absent from the meeting of the 11th inst., when a modification of the line of the Aqueduct was approved by the Commissioners, as set forth in the minutes of that meeting, he now asked to be recorded as approving said modification; and on motion of Commissioner SPENCER, the Secretary was directed to record Commissioner Baldwin as approving said modification, and the minutes were then approved as read.

The Committee of Finance and Audit reported the examination and audit of bills embraced in vouchers Nos. 216 to 224, inclusive, which vouchers were, on motion of the MAYOR, approved and ordered to be certified to the Comptroller.

The said Committee also submitted the following recommendations, viz,:

1st. That the sum of three thousand dollars ($3,000) be appropriated for the erection of observatory towers along the line of the Aqueduct, to facilitate the engineering work and to save damage to private property.

2d. That the Diamond Rock boring machine, Drill D, belonging to the Commissioners, be altered to adapt it to boring two-inch as well as four-inch holes, at a cost not to exceed eleven hundred dollars ($1,100).

3d. That Robert W. Creuzbauer be appointed assistant draughtsman, at a compensation of one hundred dollars ($100) per month.

4th. That Lincoln Frank be appointed chainman, in place of Fred. B. Rogers, at a salary of sixty dollars ($60) per month, to date from June 16th.

And, upon motion of the COMPTROLLER, all of the above recommendations of the Committee were approved and adopted unanimously.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session for consultation with the engineers present, upon the proposed modifications of the line for the purpose of avoiding the "Gould Swamp" lands; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 18, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Consulting Engineer Davis, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Executive Session of June 11th were read and approved.

The Secretary presented an agreement with the American Diamond Rock Boring Company, for making further borings south of the north line of the city; which agreement had been examined and approved on the 17th inst., by the Committee of Finance and Audit, to whom the

matter had been referred by resolution of May 28th (Ex. Sess.); and on motion of Commissioner SPENCER, it was

Resolved, That the President is hereby empowered to execute and deliver said agreement on behalf of the Commissioners.

The following reports were then presented and read in relation to the modification of the line of the Aqueduct to avoid the "Gould's Swamp" lands, as shown by the plan ("Exhibit Y") submitted by the Department of Public Works, viz.:

1. Report of Chief Engineer Church, dated June 18th, and of Consulting Engineer Davis, dated June 18th.

2. Report of Chief Engineer Newton, dated June 18th, and Consulting Engineer Adams, dated June 17th;

all approving and recommending the adoption of the said modification of the line of the Aqueduct, and all of which reports were ordered placed upon file.

The following resolution was then offered by Commissioner DOWD:

Resolved, That of the plan for the modification of the line of the Aqueduct, submitted to the Commissioners by the Commissioner of Public Works, and marked "Exhibit Y," that part of said plan beginning at a point now designated thereon by a vertical line, marked C—C, and running thence northerly to a point on the lands of Henry Welker, as shown by the blue line on said plan; which point is near Station 410 of Final Plan Sheet No. 2, adopted and filed by the Commissioners on the 9th of April, 1884, be and the same is hereby approved and adopted for the modification of the line of the Aqueduct.

Which resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioners Spencer, Dowd and Baldwin.

On motion of Commissioner DOWD, the Secretary was directed to confer with the Counsel to the Corporation in relation to the time when the Commissioners can advertise for proposals for the construction of the Aqueduct, and to report to the Commissioners the result of such conference.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL EXECUTIVE MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, June 21, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.
Also *Chief Engineer* CHURCH and *Engineer of Construction* CRAVEN.

The minutes of the Stated Meeting and of the Executive Session of June 18th were read and approved.

The matter of the modification of the line of the Aqueduct from the Pocantico River to the lands of Drissler, south of Glenville, was then considered.

Commissioner DOWD stated that as the modification of the line of the Aqueduct now proposed is of greater extent than was originally contemplated, and beyond what was included in the notice of the public hearings commenced on the 30th of April last, he now moved the reconsidera-

tion of the following resolution, adopted in Executive Session on the 18th inst., viz.:

Resolved, That of the plan for the modification of the line of the Aqueduct, submitted to the Commissioners by the Commissioner of Public Works, and marked "Exhibit Y," that part of said plan beginning at a point now designated thereon by a vertical line marked C—C, and running thence northerly to a point on the lands of Henry Welker, as shown by the blue line on said plan, and which point is near Station 410 of Final Plan Sheet No. 2, adopted and filed by the Commissioners on the 9th of April, 1884, be and the same is hereby approved and adopted for the modification of the line of the Aqueduct.

Which motion of reconsideration was carried unanimously.

The COMPTROLLER then moved that the matter of the above described modification of the line of the Aqueduct be laid on the table for future action, which motion was adopted by the following vote:

In the Affirmative—The Mayor, Comptroller, Commissioners Dowd and Baldwin.

In the Negative—Commissioner Spencer.

On motion of Commissioner BALDWIN, it was

Resolved, That the Chief Engineer is instructed, in company with Consulting Engineer Davis, to re examine the Gould's Swamp adopted line of the Aqueduct, and all the plans and estimates for constructing the Aqueduct through said "swamp," and to make to the Commissioners, on Wednesday next, a report of the

final and positive conclusions at which they arrive after making such re-examinations.

On motion of Commissioner SPENCER, the Secretary was directed to request the Commissioner of Public Works to hasten the preparation of property maps of the adopted line, and also of the proposed modified line, as much as possible, and to deliver the same to the Commissioners as soon as practicable.

The meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—The above minutes are recorded as same were amended in the meeting of June 25, 1884.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 25, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church and Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of June 18th having been read and approved in the Special Meeting of June 21st, the Secretary was directed to here record them approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 225 to 234, and upon motion of the COMPTROLLER the said vouchers were approved, and certified to the Comptroller for payment.

There being no other regular business presented, the Commissioners, on motion of Commissioner SPENCER, then went into Executive Session for further consultation and consideration of the matter of the proposed modification of the Aqueduct line to avoid "Gould's Swamp;" and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, June 25, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Engineer of Construction Craven, and Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Executive Session of June 18th having been read and approved in the Special Meeting of 21st inst., the Secretary was directed to here record them approved.

The minutes of the Special Session of June 21st were read, and upon suggestion of the MAYOR, were amended, and as amended were then approved.

In compliance with the instructions of the Commissioners, by resolution of June 18th, the Secretary reported

(verbally) the result of a conference with the Counsel to the Corporation in relation to the matter of advertising for bids or proposals.

The matter of the proposed modification of the line of the Aqueduct to avoid Gould's Swamp was then taken up, and Chief Engineer Church submitted a further report thereon, dated June 25th, accompanied by a report to him of Consulting Engineer Davis, dated June 24th, in relation to said modification, which reports were read and ordered placed upon file, and copies thereof to be made for the use of the Commissioners.

After discussing the matter with the engineers present, the MAYOR offered the following resolutions:

Resolved, That upon present information, it is the sense of the Commissioners that they should adhere to the line heretofore adopted by them for the Aqueduct, through "Gould's Swamp" lands.

Resolved, That the Commissioner of Public Works be and he is hereby directed to have the property maps of the adopted line above referred to prepared with all possible dispatch, in order that the maps of the whole adopted line may be filed, as required by law, at the earliest moment possible.

Resolved, That for our further information and guidance, the Commissioner of Public Works be and he is hereby requested to complete the explorations upon the proposed modification of the line of the Aqueduct to avoid Gould's Swamp, but not to permit that work to delay in any way the work necessary for the completion of the property maps referred to above.

Which resolutions were adopted by the affirmative vote of the Mayor, Comptroller, Commissioners Spencer, Dowd and Baldwin.

And the Secretary was directed to transmit a copy thereof to the Commissioner of Public Works immediately.

Chief Engineer Church then recommended (verbally) the appointment of Mr. Thomas Franklin as Assistant Engineer, for the special duty of superintending the borings upon the Aqueduct line south of the north line of the city; and at a compensation of one hundred and twenty-five dollars per month; which recommendation was, on motion of Commissioner SPENCER, adopted, and the Chief Engineer instructed to report to the Commissioners the date when Mr. Franklin enters upon the discharge of his duties.

The Chief Engineer also recommended (verbally) an increase of the compensation of Mr. John M. Wolbrecht, now employed as transitman at a compensation of $125 per month, and gave the reason for such recommendation. The matter was, on motion of the COMPTROLLER, referred to the Committee of Finance and Audit for consideration, and report to the Board.

Commissioner DOWD offered the following resolution:

Whereas, It is understood that some of the persons heretofore appointed to positions in the Engineer's Department of this Commission are not performing the duties to which they were assigned in an entirely satisfactory manner,

Resolved, That the Chief Engineer is hereby empowered and directed to suspend for cause any person employed in his department, every such suspension and the reasons therefor to be immediately reported by him to the Commissioners.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 2, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The minutes of the Stated Meeting of June 25th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills and pay-rolls included in vouchers Nos. 238 and 240, which vouchers were, on motion of the COMPTROLLER, approved and ordered certified to the Comptroller for payment.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session for the con-

sideration of the reports of the engineers upon the grade of the new Aqueduct and correlative matters; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 2, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

On motion of the MAYOR, the reading of the minutes of the last Executive Session was deferred until the next meeting.

The matter of the elevation of the grade line of the new Aqueduct was then taken up, and Chief Engineer Church presented a report thereon, dated July 2, 1884, which was read and ordered placed on file.

After discussion of the subject, and further explanations

by the engineers, the following resolutions were offered by Commissioner BALDWIN:

In view of the prospective growth and increased population of that portion of the city north of the Harlem River, and to enable proper provision to be made therefor, by distributing reservoirs as the same may hereafter become necessary, it is

Resolved, That of the recommendations of the Chief Engineer of this Commission for the determination of the grade line of the new Aqueduct, as set forth in his reports of May 28th, June 16th and July 2d, 1884, and as shown by the diagram this day submitted by him to the Commissioners, the following are hereby approved, viz.:

1st. That the grade line of the Aqueduct, from its mouth near Croton Dam, southward to the proposed point of its depression near Mosholu avenue, be raised ten (10) feet from the elevation shown upon the plans hitherto adopted and filed by this Commission.

2d. That by reason of the increased head and greater flowing velocity to be obtained by the above-named raising of the grade line of the Aqueduct, the internal diameter of said Aqueduct, from the above-named point of depression at Mosholu avenue to the westerly side of the Harlem River, be reduced from fourteen feet; such reduction in size not to exceed dimensions which will ensure a delivering capacity south of the Harlem River of not less than 250 million gallons per diem.

Resolved, That the above described modifications of the plan of construction of said Aqueduct are adopted,

subject to public hearing thereon; the time of said hearing to be determined hereafter.

All of said resolutions were adopted by the affirmative vote of the Mayor, Comptroller, and Commissioners Spencer, Dowd and Baldwin.

A communication was received from the Chief Engineer, dated July 2d, announcing the suspension of Assistant Engineer Charles E. Jackson, on which action was deferred until the next meeting of the Commissioners.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 9, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

The minutes of the Stated Meeting of July 2d were read and approved.

A communication was received from Deputy Commissioner of Public Works F. H. Hamlin, dated July 9, 1884, transmitting Exhibits Z and Z2, the same being the property maps of the new Aqueduct from the Pocantico River to Croton Dam, upon the modified line adopted and filed May 7, 1884, which communication was read and ordered placed upon file.

On motion of Commissioner DOWD, it was

Resolved, That the above-named property maps, this day submitted by the Commissioner of Public Works, in accordance with Section 4 of Chapter 490 of the Laws

of 1883, be and the same are hereby approved, and the Secretary is hereby directed to have the same duly certified by the Aqueduct Commissioners, as required by said section of said act, and to transmit said maps so certified to the Counsel to the Corporation, with the request that he cause the same to be filed in the office of the Register of the County of Westchester, as required by Section 5 of said act.

Upon motion of Commissioner SPENCER, it was

Resolved, That public hearing be given on Wednesday next, July 16th, at 3 o'clock P. M., upon the plan for a modification in the manner of constructing the new Aqueduct upon the "Modified Hudson River Route" heretofore adopted, by elevating the grade line of said Aqueduct from its mouth at Croton Dam, in Westchester County, to the point of its depression at Mosholu avenue, in the City of New York, *ten feet* above the grade line as shown upon the plan or plans for the construction of said Aqueduct heretofore adopted and filed by this Commission.

On motion of the MAYOR, it was

Resolved, That Comptroller S. Hastings Grant be and he is hereby appointed a member of the Committee of Finance and Audit during the absence of Commissioner Baldwin.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 9, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH, and *Chief Engineer* NEWTON of the Department of Public Works.

The minutes of the Executive Sessions of June 25th and July 2d were read and approved.

The matter of the suspension of Assistant Engineer Jackson, reported by the Chief Engineer at the last meeting, was then considered, and action thereon deferred until further inquiry and report by the Chief Engineer, which he was verbally instructed to make.

The Chief Engineer made a verbal report upon obtaining the use of telephones for the offices in New York and

at Tarrytown, and the dwellings of the Chief Engineer at Sing Sing, and the Engineer of Construction at Irvington; whereupon, on motion of Commissioner SPENCER, it was

Resolved, That, for facilitating the business of the Engineers' Department of this Commission, the Chief Engineer is hereby authorized to perfect arrangements with the telephone companies in this city and at Yonkers, to furnish and maintain telephones in the office of the Commissioners in this city, in the office of the engineers at Tarrytown, in the dwelling of the Chief Engineer at Sing Sing, and the dwelling of the Engineer of Construction at Irvington, at a total cost of not exceeding $650 per annum; and the President of this Commission is hereby requested and empowered to execute proper contracts with said telephone companies for such service.

Commissioner SPENCER stated that for the protection of the health of the engineers and employees of the Commission, some repairs were necessary upon the house at Tarrytown now rented by the Commission, and which repairs the lessor was not required to make (but for which he would probably bear one-half the expense), and he therefore recommended that Engineer of Construction Craven be directed to have such repairs made, at a cost not to exceed $100.

The recommendation was, on motion of the MAYOR, approved.

The Chief Engineer then read a letter from Engineer of Construction Craven, in relation to the past employment and compensation of William W. Proctor, now graded as Chainman in the Engineer Corps at a compensation of

$60 per month; and recommended that he be hereafter employed as "Engineer's Property Clerk" at Tarrytown, at a compensation of $100 per month; whereupon, on motion of the MAYOR, it was

Resolved, That William W. Proctor be employed as "Engineer's Property Clerk" at Tarrytown, at a compensation of $75 per month, to date from July 10th.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 16, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The meeting was opened for public hearing upon the proposed modification of the grade line of the new Aqueduct from the Croton Dam to a point near Mosholu avenue, in the City of New York, pursuant to the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, July 9, 1884.

To all whom it may concern :

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plan or plans for the following modification in the manner of constructing the new Aqueduct upon the "Modified Hudson River Route" heretofore adopted, to wit: the elevation of the grade line of said Aqueduct from its mouth at Croton Dam, in Westchester County, to the point of its depression at Mosholu avenue, in the City of New York, *ten feet* above the grade line as shown upon the plan or plans for the construction of said Aqueduct heretofore adopted and filed.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78, Tribune Building, in the City of New York, on Wednesday, July 16, 1884, at 3 o'clock P. M., and upon subsequent days and times thereafter to which said hearing may be adjourned until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

After waiting due time, and no one appearing who wished to be heard in relation to the said modification, the hearing was, on motion of Commissioner SPENCER, declared closed.

Commissioner DOWD then offered the following resolution, viz.:

Whereas, In view of the prospective growth and increased population of that portion of the city north of the Harlem River, and to enable proper provision to be made therefor by distributing reservoirs as the same may hereafter become necessary, the engineers of this Commission have recommended that the grade line of the new Aqueduct be raised ten feet above the grade line heretofore adopted for the construction of said Aqueduct; and

Whereas, Public hearing has been given in relation to said proposed modification, due notice of said hearing having been given; it is hereby

Resolved, That for the accomplishment of the above-named purpose, and for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883, the following modification in the manner of constructing the new Aqueduct be and the same is hereby approved and adopted, viz.:

1st. That the grade line of the new Aqueduct from its mouth near Croton Dam, southward to the proposed point of its depression near Mosholu avenue in the Twenty-fourth Ward of the City of New York, be raised ten (10) feet from the elevation shown upon the plans hitherto adopted and filed by this Commission.

2d. That by reason of the increased head and greater flowing velocity to be obtained by the above-

named raising of the grade line of the Aqueduct, the internal diameter of said Aqueduct from the above-named point of its depression near Mosholu avenue to the westerly side of the Harlem River, be reduced from fourteen feet; such reduction in size not to exceed dimensions which will ensure a delivering capacity south of the Harlem River of not less than 250 million gallons per diem.

Which resolution was adopted by the affirmative vote of the Mayor, the Comptroller, Commissioner Spencer and Commissioner Dowd.

And the Chief Engineer was directed to prepare the necessary final plan sheets of said modification for certification and filing, as required by the provisions of said Chapter 490 of the Laws of 1883.

The minutes of the Stated Meeting of July 9th were read and approved.

The Committee of Finance and Audit reported the examination and audit of the bills included in vouchers Nos. 241 to 259; which vouchers were, on motion of the COMPTROLLER, approved, and ordered certified to the Comptroller for payment.

A communication was received from Deputy Commissioner of Public Works F. H. Hamlin, dated July 16, 1884, transmitting Exhibit AA, "being the property map of that part of the 'Modified Hudson River Route' from a point near Ashford Station, northerly along the modified line around 'Field's Pond,' to the original line on the lands of Henry Drissler, and thence along said original

line to the lands of Henry Welcher, near the Pocantico River;" which communication was read and ordered placed upon file.

Commissioner DOWD then offered the following resolution, viz.:

Resolved, That the property maps this day submitted to the Aqueduct Commissioners by the Commissioner of Public Works, in accordance with Section 4, Chapter 490 of the Laws of 1883, and marked "Exhibit A A," being for that part of the "Modified Hudson River Route" for the new Aqueduct from the lands of James Pyle north of Ashford Station (on the New York City and Northern Railroad) northward along the revised line to the eastward of the pond of Cyrus W. Field (as shown upon "Final Plan Sheet No. 10," adopted June 11, 1884) to the lands of Henry Drissler, and thence northward along the modified line (as shown upon "Final Plan Sheets 3 and 2," adopted April 9, 1884) to the lands of Henry Welcher, near the Pocantico River, be and the same are hereby approved; and the Secretary is hereby directed to have the said maps duly certified by the Aqueduct Commissioners, as required by said section of said act, and to transmit said maps so certified to the Counsel to the Corporation, with the request that he cause the same to be filed in the office of the Register of the County of Westchester, as required by Section 5 of said act.

The Secretary presented a communication from the Counsel to the Corporation, dated July 9, 1884, giving notice of the filing, on that day, of the property maps

from the Harlem River to the north line of the city, and naming August 23d next for making application for the appointment of Commissioners of Appraisal; which communication was read and ordered placed on file.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and upon resuming the open session, adjourned.

JAMES. W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 16, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH, and *Chief Engineer* NEWTON of the Department of Public Works.

The minutes of the Executive Session of July 9th were read and approved.

Chief Engineer Church made further report (verbally) in relation to the suspension of Assistant Engineer Charles E. Jackson, and the matter of telephones; and action on both matters was deferred.

The Chief Engineer presented a copy of a communication from Engineer of Construction Craven, dated July 15,

1884, in relation to the observatory towers, with an estimate of the cost of the same; which communication was, on motion of the MAYOR, referred to the Committee of Finance and Audit.

The Chief Engineer also presented a letter from Engineer of Construction Craven, dated July 12, 1884, transmitting the application of Albert H. Porter for the position of Rodman in the Engineer Corps, and recommending his appointment in the place of Wm. W. Proctor, appointed Property Clerk; which was, on motion of the COMPTROLLER, referred to the Committee of Finance and Audit.

The Commissioners then went into closed session; after which they adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE:—

WEDNESDAY, July 23, 1884.

No Stated Meeting was held on this day by reason of the absence from the city of three of the Commissioners.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 30, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner WILLIAM DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of July 16th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 260, 261, and 263 to 268, which were, on motion of the COMPTROLLER, approved and ordered certified to the Comptroller for payment.

A communication was received from the Commissioner of Public Works, dated July 29, 1884, giving notice of the receipt and filing in his office on the 22d inst. of Final Plan Sheet No. 10, being the diversion line for the new Aqueduct, upon the lands of Cyrus W. Field and others, north of Ashford Station; which communication was read and ordered placed on file.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session for the consideration of the specifications for the shaft and tunnel work between the Harlem River and the north line of the city; and upon resuming the open session, adjourned.

JAMES W. McCULLOH.
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, July 30, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner WILLIAM DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Executive Session of July 16, 1884, were read and approved.

The Committee of Finance and Audit made the following report, viz.:

In the matter of the compensation of Mr. John M. Wolbrecht, referred to this Committee June 25, 1884, the Committee recommend that John M. Wolbrecht, now

Transitman, be promoted to the position of Assistant Engineer, at a compensation of $150 per month, to date from July 22, 1884.

And in the matter of the application of Albert H. Porter, referred to the Committee June 16, 1884, the Committee recommend the appointment of said Albert H. Porter, as Rodman and Chainman in the Engineer Corps of this Commission, at a compensation of $60 per month, to date from his entrance upon the discharge of his duties under such appointment.

On motion of the MAYOR, both of the above recommendations were approved and adopted.

The Committee also referred to the Commissioners a communication from Chief Engineer Church, dated July 22, 1884, so far as the same relates to the compensation of Assistant Engineer Gowen and Drill Engineman Sager.

After hearing the statements of the Chief Engineer in relation to those matters, on motion of the COMPTROLLER, action was deferred in relation to the compensation of Mr. Gowen.

And on motion of the COMPTROLLER, the Chief Engineer was authorized to pay Engineman Sager, on and after August 1st next, at the same rate now paid for similar service by the Department of Public Works, viz.: 37½ cents per hour.

The Chief Engineer reported further (verbally) in relation to the suspension of Mr. Charles E. Jackson, and upon request of Commissioner THOMPSON, final action in the matter was deferred until the next meeting.

The Chief Engineer recommended the appointment of Mr. Robert Ridgway to the position of Leveller in the Engineer Corps of this Commission, at a compensation of $100 per month; and, on motion of Commissioner THOMPSON, the recommendation was approved, and Mr. Ridgway appointed Leveller at the compensation above named, to date from his entrance upon the discharge of his duties.

In part compliance with the resolution of February 20, 1884, referring to the Chief Engineer the specifications for the construction of the tunnel of the Aqueduct, submitted by the Commissioner of Public Works February 6, 1884, the Chief Engineer made a verbal report, and presented for the consideration of the Commissioners a draft of specifications for the construction of the tunnel from the Harlem River to the north line of the city, with such additions and modifications as seemed to him advisable.

Commissioner DOWD moved that the said draft of specifications be referred to a committee of three, of which the Mayor shall be one, for examination and report to the Board, which motion was adopted; and the Secretary was directed to have copies made at once for the use of the Commissioners.

The MAYOR named the Comptroller and Commissioner Dowd as his associates upon said committee.

The Secretary presented a communication from the Comptroller, dated July 23, 1884, calling attention to Section 42 of Chapter 490, and its application to the appointment of

Wm. W. Proctor, Property Clerk;
Frank H. Braham, Messenger;
James E. Taylor, Janitor,

at Tarrytown; whereupon, on motion of the MAYOR, the Secretary was directed to consult the Corporation Counsel upon the subject, and report to the Board at its next meeting.

Chief Engineer Newton then asked the consideration of the Commissioners of the proposed revision of the line for the new Aqueduct around Gould's Swamp; and stated that all the explorations necessary to determine the character and extent of the obstacles on that route had now been made, and the results were ready for submission to the Commissioners.

On motion of Commissioner DOWD, the consideration of said diversion line was laid over until Wednesday next; and the Secretary was directed to notify Commissioner Spencer thereof.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE:—

WEDNESDAY, August 6, 1884.

No Stated Meeting was held on this day by reason of the absence from the city of three of the Commissioners.

JAMES W. McCULLOH,
Secretary.

NOTE:—

WEDNESDAY, August 13, 1884.

No Stated Meeting was held on this day by reason of the absence from the city of three of the Commissioners.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, August 18, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Corporation Counsel* LACOMBE.

The meeting was opened for public hearing pursuant to the following notice:

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, August 14, 1884.

PUBLIC NOTICE.

To all whom it may concern :

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public

notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the following modification in the plan or plans heretofore adopted for the construction of the new Aqueduct upon that part of the line thereof south of the north line of the City of New York, viz.: The depression of the grade line of said Aqueduct from the said north line of the City of New York to a point near Mosholu avenue, ten feet beneath the grade line adopted July 16, 1884.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78, Tribune Building, in the City of New York, on Monday, August 18, 1884, at 3 o'clock P. M., and upon subsequent days thereafter to which said hearing may be adjourned until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

The Commissioners remained in session for one hour; and no one appearing who desired to be heard in relation to the proposed modification, the hearing was, on motion of Commissioner SPENCER, adjourned until Wednesday next, the 20th inst., at 3 o'clock P. M.; and the Secretary was directed to continue public notice of said hearing.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, August 20, 1884, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Corporation Counsel Lacombe, Chief Engineer Church, Chief Engineer Newton, and Consulting Engineer Adams of the Department of Public Works.

In the absence of the Mayor, who was detained by sickness, Vice-President Dowd presided.

The meeting was opened for public hearing pursuant to the notice of the 14th, and the adjournment from Monday the 18th.

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, August 14, 1884.

PUBLIC NOTICE.

To all whom it may concern:

In conformity with the requirements of Section 2, Chapter 490, Laws of 1883, of the State of New York, public notice is hereby given to all persons interested that full opportunity will be afforded them to be heard in relation to the plan or plans for modifying the grade line heretofore adopted for the construction of the new Aqueduct from the Harlem River to Croton Dam, as shown upon the plans and maps now on file in this office.

Said public hearing to be at the office of the Aqueduct Commissioners, Room No. 78, Tribune Building, in the City of New York, on

WEDNESDAY, AUGUST 20, 1884, AT 3 O'CLOCK P. M.,

and upon subsequent days thereafter to which said hearing may be adjourned until finally concluded.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

After waiting for one hour, and no one appearing who desired to be heard in relation to the proposed modification, the hearing was further adjourned until Friday next, the 22d inst., at 3 o'clock P. M.

The regular order of business was then taken up, and, on motion of Commissioner SPENCER, the reading of the minutes of the last Stated Meeting was dispensed with.

The Committee of Finance and Audit reported the examination and audit of the bills included in vouchers, as follows: On August 6th, Nos. 274 to 284, inclusive; on August 19th, Nos. 285 to 299, inclusive; which vouchers were, on motion of the COMPTROLLER, approved and ordered certified to the Comptroller for payment.

Commissioner DOWD then offered the following resolution, viz.:

Resolved, That the resolution heretofore adopted July 16, 1884, and providing—

1st. That the grade line of the new Aqueduct, from its mouth near Croton Dam southward to the proposed point of its depression near Mosholu avenue, in the Twenty-fourth Ward of the City of New York, be raised ten (10) feet from the elevation shown upon the plans hitherto adopted and filed by this Commission.

2d. That by reason of the increased head and greater flowing velocity to be obtained by the above mentioned raising of the grade line of the Aqueduct, the internal diameter of said Aqueduct, from the above named point of its depression near Mosholu avenue to the westerly side of the Harlem River, be reduced from fourteen feet; such reduction in size not to exceed dimensions which will insure a delivering capacity south of the Harlem River, of not less than 250 million gallons per diem, be and the same is hereby rescinded.

The said resolution was adopted by the affirmative vote of the Comptroller, Commissioner of Public Works, and Commissioners Spencer and Dowd.

Commissioner SPENCER then offered the following resolution:

Resolved, That the grade line of the new Aqueduct, from its mouth near Croton Dam southward to the boundary line between the County of Westchester and the County of New York, be raised ten (10) feet from the elevation shown upon the plans hitherto adopted and filed by this Commission, the plan of said elevated grade line being designated Final Plan Sheet No. 11.

Commissioner THOMPSON objected to a change of the grade line of the Aqueduct, as fixed on the plans adopted April 9, 1884. The vote was then taken upon the resolution, as follows:

In the affirmative — The Comptroller, Commissioner Spencer and Commissioner Dowd.

In the negative—The Commissioner of Public Works.

Vice-President Dowd announced that, as the adoption of a modification of the plans required a majority of all the Commissioners, the resolution was lost.

The Commissioners then adjourned, to meet on Friday next, the 22d instant, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, August 22, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Corporation Counsel* E. HENRY LACOMBE and *Chief Engineer* CHURCH.

The meeting was opened for public hearing in relation to the proposed modification of the grade line of the Aqueduct, from its mouth near the Croton Dam to the boundary line between the County of Westchester and the City and County of New York, pursuant to the notice of the 14th inst. and the adjournment from the 20th.

No person appeared who desired to be heard in relation to the proposed modification, and after waiting one hour, the said hearing was, on motion of Commissioner SPENCER, finally "closed."

The regular order of business was then taken up, and the minutes of the Stated Meeting of Wednesday, July 30th, of the Special Meeting of Monday, August 18th, and of the Stated Meeting of Wednesday, August 20th, 1884, were read and approved.

Commissioner DOWD then offered the following resolution:

Resolved, That for the more efficient carrying out of the provisions of Chapter 490 of the Laws of 1883 of the State of New York, the plans heretofore adopted on the 9th day of April, 1884, on the 7th day of May, 1884, and on the 11th day of June, 1884, for the construction of the new Aqueduct, be and the same are hereby modified in the following manner, to wit: that the grade of the centre of the invert of the said Aqueduct at its upper end or mouth, near the Croton Dam, be raised ten (10) feet above the elevation shown upon the plans heretofore adopted; and that the grade line of said Aqueduct be continued from said upper end or mouth to the boundary line between the County of Westchester and the City and County of New York at an elevation of ten (10) feet above, and parallel with, the grade line shown upon the plans heretofore adopted as aforesaid.

The said resolution was adopted by the affirmative vote of all the Commissioners present, to wit: the Mayor, the Comptroller, and Commissioners Spencer and Dowd.

Commissioner DOWD then offered the following resolution:

Resolved, That a final plan sheet, to be designated "Final Plan Sheet No. 11," be prepared under the direction of the Chief Engineer, showing the above described modification; and that the Secretary immediately transmit a copy of said final plan sheet, duly certified, to the Commissioner of Public Works, for filing in his office; and that the said Commissioner of Public Works be and he is hereby requested forthwith to place the said modification upon the property maps heretofore

submitted by him, and approved by the Aqueduct Commissioners.

The above resolution was unanimously adopted.

The Secretary then stated that, in obedience to the directions of the Commissioners on the 18th of August, 1884, he had transmitted by cable the following dispatch addressed to Commissioner Baldwin:

"NEW YORK, August 18, 1884.

C. C. BALDWIN,

Care of Rothschilds & Co., Paris.

Commissioners propose to elevate grade line of Aqueduct ten (10) feet. Corporation Counsel advises that your concurrence be obtained by cable.

JAMES W. McCULLOH,

Secretary."

In answer to which dispatch the Secretary submitted the following reply:

CABLE MESSAGE.

"BADEN BADEN, August 22, 1884.

To McCULLOH,

Secretary Aqueduct (*Commission*).

I concur.

BALDWIN."

On motion of the COMPTROLLER, the Secretary was directed to enter both of the above dispatches in full upon the minutes of this meeting, and to file the originals in this office.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,

Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, August 22, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and E. HENRY LACOMBE, Esq., *Counsel to the Corporation.*

The minutes of the Executive Session of July 30th were read and approved.

The Secretary submitted a communication from the Counsel to the Corporation, dated August 7, 1884, in reply to questions in relation to certain employees of the Commission; which communication was read and ordered placed on file; and the Secretary was directed to enter upon these minutes the following synopsis of the questions and answers embraced in said communication:

1. "Should the appointment of a clerk, messenger and janitor for duty in the Engineer's Department of this Commission at Tarrytown, and of other persons employed in and about the work of that department, be submitted to the Board of Estimate and Apportionment for approval, as coming within Section 41 of the act?"

2. "Where an appointment has been made and compensation fixed, and the same been approved by the Board of Estimate and Apportionment under Section 41 of the act —as, for instance, the Secretary—can the Commissioners increase the compensation of such appointee without submitting such increase to the said Board of Estimate and Apportionment?"

Answer to first question:

"In my opinion such action is unnecessary. The act, as a whole, contemplates that the various persons whose services are required to enable the Aqueduct Commissioners to discharge their functions shall be selected and appointed and their compensation fixed by the Commissioners" (Sec. 31).

"In my opinion, it was not the intention of the Legislature, by Section 41, to deprive the Aqueduct Commissioners of the ample powers already conferred upon them."

Answer to second question:

"If the Board of Estimate and Apportionment has approved of the decision of the Aqueduct Commissioners that they will employ a secretary, the amount of the compensation of such secretary is, I apprehend, to be fixed by the Commissioners themselves."

The Secretary also presented a communication from the Counsel to the Corporation, dated August 16, 1884, in relation to the fixing, by the Aqueduct Commissioners, of the price to be paid contractors for the "backing" to be used in the Aqueduct tunnel; which communication was ordered to be placed on file and copies thereof furnished to the Special Committee on Specifications and to the Chief Engineer of this Commission.

The Secretary submitted requisitions of the Chief Engineer for

1 set single harness;
1 pair lead lines;
1 set lead bars;

for use of the Engineer Department; which were, on motion of the MAYOR, referred to the Committee of Finance and Audit, with power.

The Chief Engineer presented a communication, dated August 22, 1884, in relation to wages of the enginemen in charge of the rock boring machines; which communication was read and ordered placed on file.

After discussion of the subject, the COMPTROLLER offered the following resolution:

Resolved, That in lieu of the rate of wages authorized by resolution of July 30, 1884, to be paid to Engineman Sager, the Chief Engineer be and he is hereby authorized to pay said engineman at the rate of one hundred and twenty-five dollars per month, commencing with the present month.

The Chief Engineer also presented a communication, dated August 22, 1884, enumerating the various structures appurtenant to the new Aqueduct, from Croton Dam to the north side of the Harlem River, for which plans have not yet been submitted to the Commissioners by the Department of Public Works.

Also a plan of the line of work from the north side of Manhattan Valley to such point in the City of New York as may be determined for the lower terminus of the new Aqueduct, together with a plan for the construction of said work, with estimates, specifications and particulars thereof.

On motion of the MAYOR, the communication was ordered placed on file; and the Secretary was directed to call the attention of the Commissioner of Public Works to that part of the resolution of August 8, 1883, which relates to the above matters, and to request that he submit such plans as he has prepared in accordance therewith, and to request of him the plans above named for that part of the work from the Manhattan Valley to a southern terminus for the new Aqueduct.

Chief Engineer Church next made a verbal report in relation to the rock borings now being made by the American Diamond Rock Boring Company under the agreement of June 18, 1884, and asked authority to have further borings made.

On motion of Commissioner SPENCER, the Chief Engineer was authorized to have such further borings made as in his judgment may be necessary, not to exceed ten in number; and upon the condition that if the whole ten are

made, the charge for the same is to be reduced fifty cents per foot from the price named in the agreement of June 18th.

The Secretary presented a letter from Charles E. Jackson, dated August 6, 1884, resigning his position as an assistant engineer of this Commission, which was read and ordered placed on file; and on motion of the MAYOR, the resignation was accepted, to take effect on the 2d of July, 1884, and the Secretary was directed to so inform Mr. Jackson.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, August 27, 1884, at 3 o'clock P. M

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner DOWD.
Also *Chief Engineer* CHURCH and E. HENRY LACOMBE, Esq., *Counsel to the Corporation.*

The minutes of the adjourned Stated Meeting of Friday, August 22d, were read and approved.

The property maps for the lands in Westchester County (marked Exhibits "X," "Z," "Z2" and "AA" respectively) heretofore submitted by the Department of Public Works and approved by the Commissioners were again submitted by the Department of Public Works for approval, with the modified grade line (adopted on August 22d inst.) shown thereon, in compliance with the request of the Aqueduct Commissioners of the 22d inst.

Commissioner DOWD then offered the following resolutions:

Resolved, That the property maps heretofore adopted by this Commission on the 6th day of June, 1884, marked Exhibit X; on the 9th day of July, 1884, marked Exhibits Z and Z2, and on the 16th day of July, 1884, and marked Exhibit AA, and now resubmitted to the Aqueduct Commissioners by the Commissioner of Public Works, with the modified grade line of the Aqueduct delineated thereon, are hereby approved.

Resolved, That the approval of the same, as now amended, be duly certified thereon by the Aqueduct Commissioners, as required by Section 4, Chapter 490, Laws of 1883; and that said maps, so certified, be transmitted to the Counsel to the Corporation, with the request that he cause the same to be filed in the office of the Register of the County of Westchester, and the Register of the City and County of New York, respectively, as required by Section 5 of said act.

Commissioner THOMPSON stated that had he been able to attend the meeting of the 22d inst., when the raised grade line of the new Aqueduct was adopted, he should have voted against such modification; and he now wished to be recorded as opposed to it; but, as the Commissioners had then adopted the modification and requested the same to be shown upon the property maps heretofore submitted by him, their request had been complied with; and that being informed that it was essential that all present should unite in approving and certifying the said maps as now amend-

ed, he would concur with his associate Commissioners in so doing, in order that the legal proceedings to acquire the right to the lands might not be delayed.

The above-named resolutions of Commissioner DOWD were then adopted by the affirmative vote of the Mayor, the Comptroller, the Commissioner of Public Works and Commissioner Dowd.

And the Secretary was directed to have the said maps duly certified and transmitted at once to the Counsel to the Corporation for filing.

The Committee of Finance and Audit reported the examination and audit of the bills included in vouchers Nos. 300 to 310, inclusive, which vouchers were, on motion of the COMPTROLLER, approved and ordered certified to the Comptroller for payment.

The Committee also reported the following recommendations, viz.:

1st. That Charles C. Manning be appointed Assistant Draughtsman in this Commission, at a compensation of $100 per month, to commence when released from duty in the Department of Public Works and entrance on his duty under this Commission.

2d. That Charles G. Gustafson be appointed as Temporary Assistant Draughtsman, at a compensation of $75 per month, to date from his entrance upon the discharge of his duties.

On motion of the MAYOR, both of the said recommendations were approved.

Commissioner THOMPSON called up the application of Evelyn P. Roberts for the position of Assistant Engineer, and offered the following resolution:

Resolved, That Evelyn P. Roberts be and he is hereby appointed to the position of Assistant Engineer in this Commission, at a compensation of $150 per month, to date from his entrance upon the discharge of his duties as such Assistant.

The resolution was unanimously adopted.

On motion of the COMPTROLLER, it was

Resolved, That the compensation of Charles S. Gowen, Assistant Engineer, be increased to the rate of $150 per month, to date from the 1st of September next.

On motion of Commissioner DOWD, it was

Resolved, That Arthur H. Grant be promoted from the position of Woodman to that of Chainman and Rodman, at a compensation of $60 per month, to date from the 1st of September next.

The Stated Meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—Notice was this day received from the Counsel to the Corporation of the filing in the office of the Register of Westchester County on the 28th day of August, 1884, of Map No. 1 of the six similar property maps of the lands required for the construction of the new Croton Aqueduct in said county.

August 30, 1884.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, September 3, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Newton of the Department of Public Works.

The minutes of the Stated Meeting of August 27th ulto. were read and approved.

The Committee of Finance and Audit reported the examination and audit of the bills included in vouchers Nos. 316 to 323, inclusive; which vouchers were, on motion of

the COMPTROLLER, approved and ordered certified to the Comptroller for payment.

In compliance with the directions of the Commissioners, of February 20, 1884, Chief Engineer Church submitted to the Commissioners a report, dated September 3, 1884, with forms of contract and specifications for that part of the Aqueduct Tunnel between the Harlem River and the north line of the city, with such "amplifications, modifications and changes" as he deemed requisite to adapt said forms to the present plans and manner of constructing said Aqueduct.

On motion of Commissioner DOWD, the report was accepted and the Secretary directed to transmit the amended forms to the Commissioner of Public Works, with the request that he examine them and return them to this Commission with any recommendations in relation thereto that he may deem requisite for the more efficient carrying out of the provisions of the law, or the construction of said Aqueduct; and the Chief Engineer was instructed to place at the disposal of the Department of Public Works all plans referred to in explanation of said amended forms.

The Chief Engineer then submitted a list of applicants for the position of Rodman or Chainman in the Engineer Corps of this Commission; and the Secretary was directed to communicate at once with the Secretary of the Municipal Service Examining Board, and to take the proper steps to obtain an early examination of said applicants by the said Board.

The Secretary reported the receipt from the Counsel to the Corporation of a certified copy of the filing on this day

of the oath of office of Messrs. E. Ellery Anderson, Henry F. Spaulding and Robert Murray, appointed August 23, 1884, as Commissioners of Appraisal to value property taken or affected by the new Aqueduct within the City and County of New York.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF THE STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, September 10, 1884, at 3 o'clock P. M.

Commissioners present:

The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley, and Chief Engineer Newton and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of September 3d were read and approved.

The Secretary presented a letter from Commissioner Baldwin, which was read and ordered to be entered upon these minutes, as follows:

" BADEN, August 22, 1884.

J. W. MCCULLOH, Esq.,
Secretary Aqueduct Commissioners,
New York.

Dear Sir:

I am this morning in receipt of your cable stating that Commissioners propose to elevate grade line of Aqueduct ten feet, to which I replied that I concurred, and beg now to confirm.

Yours truly,
C. C. BALDWIN."

The Secretary reported that, in obedience to the directions of the Commissioners, he had applied to the Secretary of the Municipal Service Examining Board for information as to the time and manner of sending forward for examination the applicants named in the list submitted by the Chief Engineer (September 3d) for appointment in the Engineer Corps of this Commission; and submitted the reply of the Secretary, dated September 5, 1884.

The matter was laid over, awaiting further information from that Board.

A communication was received from the Commissioner of Public Works, dated September 4, 1884, in reply to the request of the Commissioners (of August 22d) for further plans for the new Aqueduct; which communication was read; and, on motion of Commissioner SPENCER, was referred to the Chief Engineer for consideration, and with instructions to confer with the Consulting Engineer in relation to the matters therein referred to, and make report as soon as practicable.

The COMMISSIONER OF PUBLIC WORKS stated that he was not yet prepared to return the modified forms of specifications and contracts transmitted to him on the 4th inst., for the reason that the modifications and changes in the forms submitted by him were of such extent and so material as to require most careful consideration, but that he expected to be prepared to return the forms to the Commissioners by their next regular meeting day—the 17th inst.—with his criticisms and recommendations thereon.

A communication was received from the Comptroller, dated September 5, 1884, in relation to certain lands of the city, between Ninety-third and One Hundred and Thirteenth streets, formerly occupied by the masonry Aqueduct, and for the purchase of which lands persons are now applying to the Commissioners of the Sinking Fund, asking that the Aqueduct Commissioners would determine whether said lands will be required for the new Aqueduct.

The communication was read, and, on motion of Commissioner DOWD, was laid on the table, to await the further information necessary to enable the Aqueduct Commissioners to act in the matter.

The Chief Engineer submitted a request from Engineer of Construction H. S. Craven for authority to visit Washington, accompanied by Assistant Engineer Alfred Craven, to obtain information desired by the engineers of this Commission, and for the establishment of a standard measure to be used in the measurements of the new Aqueduct; and, on motion of the COMPTROLLER, the authority asked for was granted.

The Secretary submitted claims for damages done by the rock boring machines upon lands occupied by Antoine

Singar and by Emil Weber, which claims have been fully investigated and reported upon by the engineers; and asked instructions from the Commissioners as to the disposition of said claims, and others of a similar nature which may be hereafter received.

On motion of Commissioner SPENCER, the said claims of Singar and Weber were referred to the Committee of Finance and Audit; and the Chief Engineer and the Secretary were directed to have all similar claims which may be presented fully investigated, and to make detailed report thereof to the Committee of Finance and Audit for consideration, and report to the Commissioners.

On motion of Commissioner DOWD, the Secretary was directed to confer with the Counsel to the Corporation with regard to certain proposed changes in the size of the new Aqueduct where it will be under pressure, and to report to the Commissioners at their next meeting.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, September 17, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley, and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of September 10th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 324 to 338, inclusive; which vouchers were, on motion of the

COMPTROLLER, approved and ordered certified to the Comptroller for payment.

The Secretary reported (verbally) that in obedience to the instructions given him at the last meeting of the Commissioners, he had consulted the Counsel to the Corporation in relation to the proposed reduction in the size of the depressed portions of the new Aqueduct where the same is under pressure, such reduction securing greater strength and solidity, as well as economy of cost, without lessening the delivering capacity of the said Aqueduct; and that in the opinion of the said Counsel, full public hearing having heretofore been given upon all matters relating to said Aqueduct, the proposed reduction in size (if deemed by the Aqueduct Commissioners necessary for the more efficient carrying out of the provisions of the act) was entirely within the discretionary power of said Commissioners; which report the Secretary was instructed to enter upon these minutes, as above.

A report was received from the Chief Engineer, dated September 17, 1884, in relation to plans for gate house and other structures for the new Aqueduct; which was read and ordered placed on file.

On motion of Commissioner DOWD, the Chief Engineer was instructed to transmit the plans referred to in said report to the Commissioner of Public Works; and the Secretary was instructed to transmit a copy of the Chief Engineer's report to the Commissioner of Public Works, with the request that for the purpose of carrying out the provisions of Section 2 of Chapter 490, he formally submit

the plans referred to in said report to this Commission, as part of the plans called for by said section of said act.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session for the consideration of the specifications and contracts for the new Aqueduct; and upon resuming the open session, adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, September 17, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley, also Consulting Engineer Adams of the Department of Public Works.

The minutes of the Executive Session of August 22d were read and approved.

A communication was received from E. Henry Lacombe, Esq., Counsel to the Corporation, dated September 12, 1884, in relation to the forms of contract and specifications informally submitted to him for examination September 9th, and returning said forms with annotations and especial recommendations in relation to a certain clause in

the said contract in relation to "extra work." The communication was read and ordered placed on file, for future consultation with the said Counsel.

The COMMISSIONER OF PUBLIC WORKS stated that he was not yet ready to return the forms of contract and specifications sent to him on the 4th inst. for the reason that he was neither able to return them with his approval, nor did he wish to assume any responsibility for what he considered the objectionable features in them, whilst at the same time he did not wish to obstruct or retard the speedy letting of the work. He therefore asked further time for consideration and decision as to the proper course to be pursued by him, and stated that he would probably be able to submit his decision to the Commissioners by Monday next, the 22d inst.

Whereupon Commissioner SPENCER moved that when the Commissioners adjourn it be to meet upon call from the Secretary, upon notice to him by the Commissioner of Public Works; which motion was carried.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, September 24, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley and Engineer of Construction Craven; also Assistant Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of September 17th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 339 to 348, inclusive, which vouchers were, on motion of the

COMPTROLLER, approved, and ordered certified to the Comptroller for payment.

The Committee also reported the receipt and filing of the opinion of the Counsel to the Corporation, that the Aqueduct Commissioners had authority to adjust and certify to the Comptroller for payment, claims for damage done to growing crops in making rock-boring explorations; in accordance with which opinion, they had audited and certified the claims of Emil Weber, Charles Beherens and Antoine Singer, referred to them by the Commissioners on the 10th inst.

The COMMISSIONER OF PUBLIC WORKS presented a communication, dated September 23d, 1884, in relation to the forms of contract and specifications transmitted to him on the 4th inst.; which communication was read, and, on motion of the MAYOR, was referred to Commissioners Spencer and Dowd, Chief Engineer Church and Consulting Engineer Davis for investigation and report thereon at the earliest moment practicable.

Chief Engineer Church presented the following communications, dated September 24, 1884:

1st. Second partial report upon the communication of the Commissioner of Public Works of September 4th inst., in relation to the southern terminus of the new Aqueduct.

This communication was read, ordered placed on file, and a copy to be furnished to the Commissioner of Public Works.

2d. Recommending the letting of the contracts for the construction of the Aqueduct in the Twenty-fourth Ward

of this city in two sections—describing said sections—and giving estimate of the cost of each.

This communication was read, ordered placed on file, and referred to the Special Committee this day appointed to investigate and report on the forms of contract and specifications.

3d. A request for authority to order two transits for underground work, one cross-section rod, and one cross-section pole.

This communication was also read, and referred to the Committee of Finance and Audit, with power.

The Secretary presented the following letter from Commissioner Baldwin in reply to one addressed to him August 18, 1884, which was read and ordered placed on file, and entered upon these minutes, as follows:

"LONDON, September 4, 1884.

J. W. MCCULLOH,
Secretary Aqueduct Commission.

Dear Sir:

I hereby accept as sufficient notice of the meeting of the Aqueduct Commissioners on Wednesday, August 20, 1884, for the consideration of the grade line of the new Aqueduct, the delivery of such notice at my dwelling on the 18th of August, 1884.

Yours very respectfully,

C. C. BALDWIN."

Commissioner SPENCER presented a letter from William C. Kingsley, Esq., approving the form of contract and

specifications, which was read and ordered placed on file, and entered on these minutes, as follows:

"22 SANDS ST., BROOKLYN,
September 22, 1884.

Hon. JAMES C. SPENCER.

My Dear Sir:

I enclose you the specifications, etc., and in reply will say that I have read them very carefully, and have no amendments or corrections to suggest. The Commissioners and city are fully protected, but some of the requirements are rather severe on the contractors.

Very respectfully yours,
WILLIAM C. KINGSLEY."

Commissioner SPENCER also presented a communication in relation to a new kind of brick for hydraulic masonry, which was read and referred to the Chief Engineer.

Engineer Craven made a brief verbal report of his examination of the Washington and of the Vosburg tunnels, now under construction, and will make full report to the Chief Engineer of the result of such examinations.

On motion of the MAYOR, the Commissioners then adjourned to meet at 3 P. M. to-morrow, the 25th inst.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, September 25, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also E. Henry Lacombe, Esq., Counsel to the Corporation; Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley and Engineer of Construction Craven.

On motion of the COMMISSIONER OF PUBLIC WORKS, the reading of the minutes of the last Stated Meeting was deferred.

The Special Committee, to which was referred the communication of the Commissioner of Public Works in relation to the forms of contract and specifications, then presented their report.

The COMMISSIONER OF PUBLIC WORKS asked that the report be received, and copies made for use of the Commissioners, and that its consideration be adjourned until another day, as he was unable to remain at present, and the assistant engineer of his department could not now attend.

After consultation, the Commissioners decided to hear and act upon the report, and the Commissioner of Public Works then asked to be excused and withdrew.

The above-named report of Commissioners Spencer and Dowd, and Engineers Church and Davis, in relation to the communication of the Commissioner of Public Works, was then read and considered by sections; and

Commissioner SPENCER offered the following resolution:

Resolved, That the report of the Special Committee to which was referred the communication of the Commissioner of Public Works, dated September 23, 1884, in relation to the forms of contract, specifications and bond for the construction of that part of the new Aqueduct in the Twenty-fouth Ward of the City of New York be received, and that the recommendations therein contained be and the same are hereby approved; and that the said forms of contract, specifications and bond be modified and completed in accordance with said recommendations, and with the recommendations of the Counsel to the Corporation, accompanying his communication of September 12, 1884, in relation thereto; and that, as so modified and completed, the said forms be and they are hereby adopted and approved by the Aqueduct Commissioners.

This resolution was adopted by the affirmative of the Mayor, the Comptroller, Commissioner Spencer and Commissioner Dowd.

And the Secretary was directed to prepare and transmit to the Commissioner of Public Works a copy of the above-named report of the Special Committee.

COMPTROLLER GRANT then offered the following resolution:

Resolved, That by reason of the increased head and greater flowing velocity to be obtained by the raising of the grade line of the Aqueduct, the internal diameter of said Aqueduct from the point of its depression near the boundary line between the City of New York and the City of Yonkers to the westerly side of the Harlem River, be reduced from fourteen feet; such reduction in size not to exceed dimensions which will ensure a delivering capacity south of the Harlem River of not less than 250 million gallons per diem.

The above resolution was adopted by the affirmative vote of the Mayor, Comptroller and Commissioners Spencer and Dowd.

Commissioner DOWD then offered the following preamble and resolution:

Whereas, The Commissioner of Public Works, in compliance with the requirements of Section 25 of Chapter 490 of the Laws of 1883, has submitted to this Commission forms of contract, specifications and bond for the doing of the work and furnishing of the ma-

terial required for the construction of that part of the Aqueduct Tunnel in the Twenty-fourth Ward of the City of New York, which said forms have been in part approved and in part rejected by this Commission; and

Whereas, The Aqueduct Commissioners have determined what provisions, in place of the portions of said forms so rejected, shall be embodied therein, in order, so far as may be possible, to save the city from loss, embarrassment and litigation by reason of any work done or supplies furnished thereunder, it is

Resolved, That the Chief Engineer and Secretary immediately prepare a complete transcript of the said forms of contract, specifications and bond, as now approved by the Commissioners, and containing provisions determined upon by them as proper to be inserted in place of those rejected; and that said complete transcript be transmitted by the Secretary to the Commissioner of Public Works, with the request that he at once formally submit said forms, so now approved, and containing the provisions aforesaid, to this Commission, for the certification of approval required by Section 25 of said act.

The above preamble and resolution were seconded by Commissioner Spencer, and were adopted by the affirmative vote of the Mayor, the Comptroller and Commissioners Spencer and Dowd.

On motion of Commissioner DOWD, the report of the Chief Engineer, of September 24, 1884, recommending the division of the new Aqueduct in the Twenty-fourth Ward

of the city into two sections for contracts, was then called up, and the recommendations therein contained were adopted unanimously.

And the Secretary was directed to make and submit to the Commissioners such changes in the form of "proposals for bids" from contractors as will enable said contractors to bid for either one or both of the said sections, as they may elect.

Chief Engineer Church then announced to the Commissioners the sudden death, this morning, of Chief Engineer Isaac Newton of the Department of Public Works, whereupon, on motion of Commissioner DOWD, the Secretary was directed to make the following entry upon these minutes:

"The Aqueduct Commissioners have learned with deep regret of the sudden death of Isaac Newton, Chief Engineer of the Department of Public Works, under whose directions have been made all the surveys, plans and maps submitted to this Commission by that department.

"The Commissioners in their intercourse with him during the past two years have been impressed by his energy and enterprise, and by his zealous advocacy of the plans for the great work entrusted to this Commission.

"And they direct that this entry be made upon the minutes as a tribute justly due to him and in token of their sincere sympathy for his afflicted family."

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 1, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also E. Henry Lacombe, Esq., Counsel to the Corporation; Chief Engineer Church, Executive Engineer Fteley, Engineer of Construction Craven, and Assistant Engineer Birdsall of the Department of Public Works.

The minutes of the Stated Meeting of September 24th and the Adjourned Meeting of September 25th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 353 to 360, inclusive, which, on motion of the MAYOR, were approved and ordered to be certified to the Comptroller for payment.

The Committee also reported their action upon the request of the Chief Engineer of September 24th, for authority to order two transits for underground work, and a cross-section rod and pole, and stated that the authority to purchase the same from Heller & Brightly of Philadelphia had been given by the Committee.

The Committee also reported a request from the Chief Engineer for authority to erect, at Tarrytown, a measuring string-piece of timber, at a cost of not exceeding $100, and recommended that such authority be given.

On motion of the MAYOR, the Chief Engineer was authorized to erect said string-piece in the manner described in his communication to the Committee of Finance and Audit, dated September 30, 1884, the cost of the same not to exceed $100.

A communication was received from the Commissioner of Public Works, dated October 1, 1884, formally transmitting forms of contract, specifications and bond for the construction of the new Aqueduct in the Twenty-fourth Ward of the City of New York, as required by Section 25, Chapter 490, Laws of 1883, for certification by the Aqueduct Commissioners, in accordance with said section of said act.

The approval of the Counsel to the Corporation, as to the "form" of said contract, specifications and bond, being required by said section of said act, and he being then present, and having previously examined said forms, the same were submitted to him for his certificate of approval.

He recommended that Clause "R," on the 24th page of

the said forms, be stricken out entirely, and that Clause "T," page 25 of said forms, be amended in the manner thereon indicated by him, from the 28th to the 34th lines of said page.

On motion of Commissioner SPENCER, these recommendations were approved unanimously; and the said forms, as so modified, were then adopted by the affirmative vote of the Mayor, the Comptroller, and Commissioners Spencer and Dowd; and the Secretary was directed to prepare triplicate copies thereof for certification by the Commissioners and the Counsel to the Corporation.

On motion of Commissioner DOWD, the filling of the blanks in the said forms to adapt them to Sections A and B of the new Aqueduct was then taken up.

Commissioner DOWD moved that the blank in the twelfth line on page 25 be filled with the word "ninety," making the sentence read: "Upon each such estimate being made, the parties of the first part will pay to the parties of the second part NINETY per cent. of such estimated value;" which motion was carried by the affirmative vote of the Mayor, the Comptroller, and Commissioners Spencer and Dowd.

Commissioner DOWD then moved that the blank amount of the security provided for on page 29 of said forms be filled in as follows, viz.:

"That the amount of the security to be given upon the contract for Section A, of the new Aqueduct, shall be one hundred and twenty-five thousand dollars; and upon the contract for Section B thereof, one hundred and thirty-five thousand dollars; with not less than two satisfactory

sureties, who shall be householders, or resident freeholders, of the State of New York."

This motion was adopted by the affirmative vote of the Mayor, the Comptroller, and Commissioners Spencer and Dowd.

The Chief Engineer and Secretary then presented the forms of proposals for the instruction and guidance of the contractors; which forms were, on motion of the MAYOR, referred to the Special Committee on Forms, appointed September 24th, with the request that said Committee report thereon to the Commissioners on Friday next, the 3d inst., at 3.30 o'clock P. M.

Chief Engineer Church presented a communication, dated October 1, 1884, in relation to the additional rodman and chainman asked for on the 3d September, and recommending that Robert E. Morris, now rodman and chainman, but who has been performing the duty of a leveller and transitman, be promoted to the position of transitman.

On motion of Commissioner SPENCER, this recommendation was approved, and the Chief Engineer directed to send Mr. Morris before the City Civil Service Board for examination for the position of transitman in the Engineer Corps of this Commission.

The Chief Engineer then requested that Alfred de la Cornillere also be sent before said Board for examination, for the position of mechanical draughtsman in the Engineer Department of this Commission.

ɔtion of the MAYOR, this request was referred to

the Committee of Finance and Audit, for consideration and report.

The Commissioners then adjourned, to meet at 3.30 P. M. on Friday next, the 3d instant.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, October 3, 1884, at 3.30 o'clock P. M., pursuant to adjournment from the 1st instant.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.
Also *Chief Engineer* CHURCH and *Executive Engineer* FTELEY.

The Special Committee, to which was referred the matter of forms of proposals, reported said forms, and also a form for the advertisement to be made for bids; which forms were read, and were approved by the Commissioners.

On motion of Commissioner SPENCER, the selection of the daily papers in which the advertisement shall be published, as required by Section 26 of the act, was then considered, and the following papers were selected, viz.: *The World, The Tribune* and *The Star*, and the Secretary

was directed to commence said advertisement to-morrow, and to continue the same daily up to and including the 29th inst. in the said daily papers, and in the *City Record*.

The Secretary presented the triplicate copies of the forms of contract, specifications and bond, adopted on the 1st inst., and duly certified by the Aqueduct Commissioners and by the Counsel to the Corporation, and asked instructions with regard to the disposition to be made of the third certified copy, about which the law makes no provision.

On motion of Commissioner SPENCER, the Secretary was directed to transmit said third certified copy to the Comptroller for filing in his office.

Commissioner SPENCER then offered the following resolution:

Resolved, That the Secretary of this Commission be and he is hereby designated by the Aqueduct Commissioners as the person who shall receive the bids or proposals from contractors, and to deposit the same in the bid box which has been provided for that purpose, as directed by Section 27 of the act; and also to receive the certified checks to be deposited by said contractors, and to deliver the same to the Comptroller of the City of New York.

This resolution was adopted unanimously.

And the Secretary was instructed to prepare a proper form of receipt for said checks, and to submit the same to the Comptroller for his approval, and to report the same to the Commissioners as soon as practicable.

On motion of Commissioner DOWD, the Secretary was directed to have printed three hundred copies of the forms of proposals, contract, specifications and bond for Section A and Section B of the new Aqueduct; one hundred copies of each to be upon paper of good quality, and two hundred copies of each upon common paper, for general distribution.

The Secretary was directed to call the attention of the Commissioner of Public Works to the request that he would submit the plans of gate houses and other appurtenances of the new Aqueduct, and to ask that he would do so at the earliest time practicable.

The Committee of Finance and Audit then reported on the matter of the application of Alfred de la Cornillere for the position of mechanical draughtsman, and recommended that the Secretary be directed to request the examination of said applicant by the Civil Service Board, and as in this case a competitive examination is not practicable, to request a non-competitive examination of Mr. de la Cornillere, as provided for in paragraph No. 7, Section 2, of Chapter 410, Laws of 1884; which recommendation was approved.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 8, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley, and Assistant Engineer Birdsall of the Department of Public Works.

The minutes of the Stated Meeting of October 1st and the Adjourned Meeting of October 3d were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers 361 to 364; and, on motion of the COMPTROLLER, said vouchers were approved and ordered certified to the Comptroller for payment.

A communication was received from the Commissioner

of Public Works, dated October 8, 1884, transmitting plans for appurtenances of the new Aqueduct, viz.:

1st. A Gate House at Croton Dam.

2d. A General Plan (in three sheets) for the Blow-Offs upon the line of the new Aqueduct.

Which communication was read and ordered placed upon file.

Commissioner SPENCER then offered the following resolution:

Resolved, That the above-named plans, this day submitted by the Commissioner of Public Works, be and the same are hereby approved and adopted by the Aqueduct Commissioners, and that the plan for the new Gate House at Croton Dam be designated "Final Plan Sheet No. 12;" and that the plan (in three sheets) for the Blow-Offs upon the line of the new Aqueduct be designated "Final Plan Sheet No. 13;" and the Secretary is hereby directed to prepare copies of said "Final Plan Sheets" for certification, and to transmit one of said copies, so certified, to the Commissioner of Public Works for filing in his office.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner Spencer and Commissioner Dowd.

Chief Engineer Church presented a communication, dated October 8, 1884, in relation to the detail of the Engineer Corps to be placed in charge of the work included in the Sixth Section of the new Aqueduct, and making recommendations as to their compensation, and other matters.

This communication was, on motion of the MAYOR, referred to the Committee of Finance and Audit for consideration and report.

The Chief Engineer also presented a communication, dated October 8, 1884, submitting a plan for dividing that part of the new Aqueduct in Westchester County into sections, for contracts; and into six engineering divisions between the Croton River and the Harlem River.

On motion of the MAYOR, seconded by Commissioner DOWD, these recommendations were approved, subject to such modifications as may hereafter be deemed necessary; and the Chief Engineer and Secretary were directed to prepare forms of contract and specifications adapted to each of the sections in Westchester County, and to report the same to the Commissioners as soon as practicable.

The Stated Meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 15, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley, Engineer of Construction Craven, and Assistant Engineer Birdsall of the Department of Public Works.

The minutes of the Stated Meeting of October 8th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 365 to 371; and, on motion of the COMPTROLLER, the said vouchers were approved and ordered certified to the Comptroller for payment.

Final Plan Sheet No. 12, of the Gate House at Croton Dam, and Sheet No. 13 (in three parts), of the Blow-Offs

upon the line of the Aqueduct, were then certified and acknowledged by the Commissioners, and the Secretary directed to transmit one copy to the Commissioner of Public Works for filing in his office.

Chief Engineer Church verbally reported upon the forms for specifications and contracts for the various sections in Westchester County, and stated that he had not yet been able to submit the same to the Consulting Engineer, but would do so shortly, and be prepared to submit them formally to the Commissioners by the time of their next meeting.

On motion of the MAYOR, the Chief Engineer and Secretary were directed to complete the forms, and to submit them to the Special Committee on Forms for examination and report to the Commissioners as soon as practicable.

The Secretary stated that the numerous applications for copies of the specifications and contract might exhaust the number previously ordered by the Commissioners, before the day of letting.

On motion of Commissioner SPENCER, the Secretary was authorized to order as many additional copies as he found necessary, not exceeding five hundred in all.

The Chief Engineer presented a report from Engineer of Construction Craven, dated October 14th, in relation to the procurement of certain instruments and apparatus for making measurements upon the tunnel; which report, upon motion of the MAYOR, was referred to the Committee of Finance and Audit, with power.

The Secretary presented the forms for bids (and envel-

opes for their enclosure), which were approved by the Commissioners.

The COMPTROLLER then offered the following resolution:

Resolved, That this Board appoint some suitable person, who shall be designated "Purveyor for the Aqueduct Commissioners," to act as purchaser of supplies, under the direction of the Board, who shall from time to time, as this Board may direct, make sale at public auction to the highest bidder of all materials not required or unfit for the uses of the Commissioners, and to collect and receive the proceeds of any such sale. and, within twenty-four hours after such collection, to transmit said proceeds to this Board for deposit as may be by this Board directed.

The said Purveyor shall enter into bonds in the sum of two thousand dollars for the faithful discharge of the duties of his office.

Which resolution was unanimously adopted.

The COMPTROLLER next offered the following resolution:

Resolved, That Daniel D. Foote be and he is hereby appointed Purveyor for the Aqueduct Commissioners, at an annual salary of twelve hundred dollars.

After discussion, the last resolution was laid over for further consideration and future action.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 22, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Assistant Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of October 15th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 372 to 375.

On motion of the COMPTROLLER, the said vouchers were approved and ordered certified to the Comptroller for payment.

The Committee also reported that under authority given by the Board at its last meeting, the Chief Engineer had been authorized by the Committee to purchase the plumbing apparatus referred to in the report of Engineer of Construction Craven, of October 14, 1884, at a cost of not exceeding $100.

The Secretary presented the following communications:

1. A letter from S. Hastings Grant, Esq., Comptroller, dated October 15, 1884, advising that upon the requisition of the Commissioners of May 1, 1884, for $250,000, the sum of $45,000 had been raised and placed to the credit of the "Additional Water Fund," which letter was read and ordered placed upon file.

2. An opinion from the Counsel to the Corporation, dated October 22, 1884, in relation to the determination of the sufficiency of the sureties offered by bidders; and also as to the acceptance of "The American Surety Company" as bondsman; which opinion was read and ordered placed upon file.

3. A letter from J. G. Chapman, Esq., dated October 22, 1884, in relation to a set of plans for the Institution of Civil Engineers of London, Great Britain; which was read and ordered placed on file, and the Secretary directed to make proper acknowledgment of its receipt.

4. A letter from Thomas Franklin, C. E., dated October 20, 1884, which was read, and, on motion of Commissioner SPENCER, was referred to the Chief Engineer.

The Secretary reported (verbally) the result of a consultation with the Counsel to the Corporation in relation to

the disposition to be made of buildings, wood and other materials to be removed from the lands taken for the new Aqueduct; and his opinion that sales thereof should be made by the Aqueduct Commissioners at auction, and the proceeds collected by them and covered into the Finance Department of the city to the credit of the "Additional Water Fund."

The Secretary submitted a form of receipt to be given to bidders for their deposit checks; which was examined and approved by the Commissioners.

At the request of the Chief Engineer, the Secretary was directed to confer with Mr. Jay Gould in relation to lands belonging to him near Glenville, which may be advantageously used by the Commissioners during the construction of the Aqueduct; and to report to the Commissioners.

On motion of the MAYOR, tho Chief Engineer and Secretary were also instructed to confer with the owners of lands between Mosholu avenue and the north line of the city, in relation to a proposed change of grade of the new Aqueduct, and to report to the Commissioners thereon.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, October 29, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley, and Consulting Engineer Adams and Assistant Engineer Birdsall of the Department of Public Works.

At 3 o'clock P. M., Commissioner DOWD announced to those present that the hour had arrived when, pursuant to the advertisement and forms of proposals for bids for the construction of Sections A and B of the new Croton Aqueduct, the bid box would be closed, and no more bids received. The box was then closed.

On motion of Commissioner SPENCER, the regular order of business was deferred; and the MAYOR announced that the bids for the above-named work would now be opened and read.

The Secretary presented a list of the bids that had been received and deposited in the bid box, as follows:

Section A:

1. Douglass, Dalzell & Douglass.
2. Arnold, Gere & Stevens.
3. Henry Collins.
4. Hamilton Smith, Jr.
5. Clark & Donovan.
6. John Cox & Co.
7. Brown, Howard & Co.
8. Malone, McGrann & Co.
9. John B. Devlin.
10. Swift & McNamee.
11. Rutter, Ripley & Co.
12. Weber & Wendt.
13. John O'Brien.
14. M. S. Coleman.

Section B:

1. Douglass, Dalzell & Douglass.
2. Arnold, Gere & Stevens.
3. Henry Collins.
4. Hamilton Smith, Jr.
5. Clark & Donovan.
6. John Cox & Co.
7. Brown, Howard & Co.
8. Malone, McGrann & Co.
9. John B. Devlin.
10. Swift & McNamee.
11. Ward, Mackin & Co.
12. Rutter, Ripley & Co.
13. Weber & Wendt.
14. John O'Brien.
15. M. S. Coleman.

The said bids were then opened and read in the presence of a large number of bidders and others, and were tabulated as read.

At the conclusion of the reading, on motion of the MAYOR, the Chief Engineer and Secretary were directed to prepare a schedule of said bids, showing the respective prices and amounts of each, and to have the same ready for consideration by the Commissioners on Saturday next, November 1st, at 2 o'clock P. M.

The Commissioners then adjourned, to meet at the time above named.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, November 1, 1884, at 2 o'clock P. M.

Commissioners present:
The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also E. Henry Lacombe, Esq., Counsel to the Corporation; Chief Engineer Church and Executive Engineer Fteley; also Consulting Engineer Adams and Assistant Engineer Birdsall of the Department of Public Works.

On motion of the MAYOR, the regular order of business was deferred for consideration of the bids received October 29, 1884, for constructing Sections A and B of the new Aqueduct.

The Chief Engineer and Secretary, in obedience to their instructions of October 29th, presented detailed schedules of the name, prices, item amounts and totals of all of said bids.

The Secretary then called attention to some omissions in the filling of the blanks in the forms of bids; which omissions were submitted to the Counsel to the Corporation, then present, and by him deemed of minor importance, and not affecting the validity of said bids; excepting in the case of Michael S. Coleman, who had omitted to verify his bids under oath prescribed in the forms of proposals and in the forms of bids; which omission, in the opinion of said Counsel to the Corporation, invalidated said bid.

Commissioner SPENCER then offered the following resolution:

Resolved, That Michael S. Coleman, one of the bidders for the contract for constructing Sections A and B of the new Aqueduct, having failed to verify his bids under oath, as required by the forms of proposals inviting said bids, and provided for in the forms of said bids, the said bids be and they are hereby declared informal and invalid, and that the Comptroller is hereby requested to refund at once to the said Coleman the amounts deposited by him with said bids.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, Commissioner Spencer and Commissioner Dowd, and the Secretary was instructed to give official notice of this action to the Comptroller and to Mr. Coleman.

Commissioner SPENCER then offered the following resolution:

Resolved, That the report of the Chief Engineer and Secretary, and the schedules of bids prepared and now sub-

mitted by them be received and approved, and that all of the bids received and read on October 29, 1884, excepting those of Michael S. Coleman, be received and considered as valid bids.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, Commissioner Spencer and Commissioner Dowd.

On motion of the COMMISSIONER OF PUBLIC WORKS, the Commissioners then went into Executive Session for the consideration of the above-named bids.

Upon resuming the open session, Chief Engineer Church presented a communication, dated November 1, 1884, recommending the appointment of Alfred de la Cornillere as mechanical draughtsman, at a compensation of $150 per month, and an increase in the compensation of Mr. Charles G. Gustafson, now employed as assistant draughtsman, to $100 per month.

On motion of the COMPTROLLER, the said recommendations of the Chief Engineer were adopted, and Mr. Alfred de la Cornillere was appointed mechanical draughtsman of this Commission at a compensation of $150 per month, to date from this day, and the compensation of Mr. Charles G. Gustafson as assistant draughtsman was increased to $100 per month, to date from this day.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, November 1, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, and Consulting Engineer Adams and Assistant Engineer Birdsall of the Department of Public Works.

The schedules of bids for Sections A and B of the new Aqueduct were considered, but action on said bids deferred until Wednesday next, the 5th inst.

The Commissioners then resumed the open session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 5, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Assistant Engineer Birdsall of the Department of Public Works.

The minutes of the Stated Meetings of October 22d and 29th, and November 1st, 1884, were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 380 to 384; and, on motion of the COMPTROLLER, said vouchers were approved and ordered certified to the Comptroller for payment.

The Secretary presented the following letters:

From General George B. McClellan, recommending Mr. Thomas Franklin, C. E., which was ordered placed on file.

From R. N. Gere, of Syracuse, in reference to contract for Sections A and B of the new Aqueduct, which was laid over for consideration in Executive Session.

The Chief Engineer and Secretary, in accordance with the directions of the Commissioners of October 15th, presented a draft of the alterations and additions to the specifications necessary to adapt them to the work upon the Aqueduct in Westchester County.

On motion of Commissioner SPENCER, the Secretary was directed to have said draft printed at once, and to furnish copies thereof to each of the Commissioners.

On motion of Commissioner THOMPSON, the Commissioners then went into Executive Session for the consideration of the bids opened on the 29th ulto.; and, upon resuming the open session, adjourned to Friday, the 7th inst., at 2 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 5, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Assistant Engineer Birdsall of the Department of Public Works.

The Commissioners resumed the consideration of the bids for constructing Sections A and B of the new Aqueduct.

Several bidders having asked for an opportunity to inform the Commissioners as to their plans, mode of working and other matters, the Commissioners decided to give such opportunity to all who desired to present any statements relating to their bids.

Messrs. Hamilton Smith, Jr., John O'Brien and George F. Swift each made statements relating to their bids; and the Secretary was directed to notify all other bidders that they would be heard on Friday next, the 7th inst., at 2 o'clock P. M.

On motion of Commissioner DOWD, the Chief Engineer was requested to make an analysis and comparative statement of the bids now under consideration, with such recommendations as he may deem pertinent; and to submit the same to the Commissioners at their next meeting.

The Executive Session was then adjourned to Friday next, at 2 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, November 7, 1884, at 2 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

On motion of Commissioner SPENCER, the Commissioners went into Executive Session for further hearing of bidders of October 29th; and upon resuming the open session, adjourned until Monday next, the 10th instant, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Friday, November 7, 1884, at 2 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church and Executive Engineer Fteley, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The following bidders were heard in relation to their bids of October 29th:

Messrs. Rutter, Stevens, Douglas, Ward and Mackin, Clark, Malone, McBean of Brown, Howard & Co., Weber, and Dady on behalf of John Cox & Co.

The Commissioners then resumed the open session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, November 10, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
The Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

On motion of Commissioner DOWD, the Commissioners went into Executive Session for further hearing of the statements of the bidders of October 29th.

Upon resuming the open session, Chief Engineer Church presented forms of contract and specifications for the new Aqueduct in Westchester County, as amended by him; and on motion of the COMPTROLLER, the Secretary was directed to transmit said forms to the Commissioner of Public

Works, with the request that he examine them, and return them to this Board as soon as practicable.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, November 10, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis, Executive Engineer Fteley, and Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The Commissioners heard the statements of Messrs. Collins and Cox, and also received further communications from Mr. John O'Brien.

The various bids were considered in detail, and the comments of the Engineers thereon were heard; after which the Commissioners resumed the open session.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 12, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Executive Engineer Fteley, Consulting Engineer Davis; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of November 5th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 385 to 400.

On motion of the COMPTROLLER, the said vouchers were

approved and ordered certified to the Comptroller for payment.

The Committee made the following recommendations, viz.:

1st. That the appropriation of $2,000, made April 30, 1884, for "monumenting the line" of the new Aqueduct from the Croton Dam to the Harlem River being nearly exhausted, and further work and material being required therefor, the Committee of Finance and Audit, upon request of the Chief Engineer, recommend an additional appropriation of $1,000 for that purpose.

2d. The Engineer of Construction, Mr. Craven, having been authorized by resolution of October 10th to visit Washington City to examine and report upon the new aqueduct work there, and for other purposes, and having also visited other tunnel work now in progress in Pennsylvania, the Committee of Finance and Audit recommend that his expenses in visiting the last named work be allowed him.

On motion of the COMPTROLLER, both of the above recommendations were approved and adopted unanimously.

The Secretary presented the following communications from the Comptroller, which were read, ordered placed on file, and the proper entries thereof made upon the books of this Commission, viz.:

1st. A letter, dated November 10, 1884, notifying the Commissioners that "the further sum of $300,000, together with the premium thereon of $3,390—in all $303,390, has been raised and placed to the credit of 'Additional Water Stock of the City of New York,'" in compliance with the

requisitions of the Aqueduct Commissioners of May 1 and September 26, 1884.

2d. Notice dated November 8, 1884, of the issue of warrants for the payment of certain vouchers for expenses incident to the work of the Commissioners of Appraisal, and not certified by the Aqueduct Commissioners, amounting to $2,014.25.

The COMMISSIONER OF PUBLIC WORKS presented forms of contract, specifications and bond for the construction of the new Aqueduct, and its appurtenances, in the County of Westchester; which forms were referred to the Chief Engineer of this Commission to examine, in conference with the Chief Engineer of the Department of Public Works, and to report to this Commission as early as possible.

Commissioner SPENCER then offered the following resolution:

Whereas, The Counsel to the Corporation has formerly advised this Commission that their appointments are not subject to Civil Service rules and regulations, neither as City or State officers; and

Whereas, Since the date of said advice, the Civil Service Act has been amended, and the Civil Service Commission of the State has expressed an opinion that the employees of this Commission are subject to said rules; therefore

Resolved, That the Counsel to the Corporation be and he is hereby requested to examine the question under the law as it now stands, and give his opinion to this Board upon the subject, and advise them as to whether

their appointments are subject to the rules and regulations of the Civil Service Commission.

Which was adopted unanimously.

Inquiry having been made as to the date of the qualification of the Commissioners of Appraisal, the Secretary produced the notifications received from the Counsel to the Corporation of the filing of the oath of office of the Commissioners of Appraisal for the City and County of New York, upon the 3d of September, 1884; and of the Commissioners of Appraisal for Westchester County upon the 27th of October, 1884; which notifications had been placed upon file, and were now ordered to be noted on these minutes.

A communication, dated November 12, 1884, was read from Messrs. Smith and Jewett, executors of the estate of Richard W. Dickenson, at Fordham, in relation to the lands to be taken for the new Aqueduct (Shaft Site D, etc.), in the Twenty-fourth Ward of the city, which, on motion of Commissioner THOMPSON, the Secretary was instructed to refer to the Counsel to the Corporation, with the request that he advise this Commission what power, if any, the Commissioners have in this and similar cases to change the tenure in lands required for use in the construction and maintenance of the new Aqueduct.

Chief Engineer Church submitted a letter from Engineer of Construction Craven, dated November 12, 1884, in relation to depredations committed upon the monuments along the line of the Aqueduct; whereupon, on motion of Commissioner DOWD, the Secretary was instructed to prepare and post, at once, handbill notices warning persons

against such depredations, and offering suitable reward for the information and evidence to ensure the arrest and conviction of offenders.

On motion of Commissioner DOWD, the Commissioners then went into Executive Session; and upon resuming the open session adjourned, to meet at 3 o'clock P. M. to-morrow, the 13th inst.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, on Wednesday, November 12, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

The Commissioners further considered in detail the various bids presented October 29th for the construction of Sections A and B of the new Aqueduct in the Twenty-fourth Ward of the City of New York, and then resumed the open session and adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, November 13, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

On motion of Commissioner SPENCER, the Commissioners went into Executive Session for final consideration of the bids received October 29, 1884.

Upon resuming the open session, the following resolution was offered by the MAYOR:

Resolved, That all the bids presented to this Commission he 29th ulto., for constructing Sections A and B

of the new Aqueduct in the Twenty-fourth Ward of the City, be and they are hereby *rejected;* and that the Secretary be and is hereby directed to notify the Comptroller of such rejection, in order that he may return the deposit checks to the depositors respectively.

This resolution was carried by the affirmative vote of the Mayor, the Comptroller, the Commissioner of Public Works, Commissioner Spencer and Commissioner Dowd.

The MAYOR then offered the following resolutions:

Resolved, That Sections A and B shall be readvertised, so that the bids therefor may be received and opened at the same time with those for the other sections of the line of the new Aqueduct.

Resolved, That the Secretary be and he is hereby directed to advertise for proposals for the construction of each and all of the sections of the line of the new Aqueduct, from the Harlem River to the vicinity of the Croton Dam, which proposals shall be opened according to law, on the 8th day of December next, at 12 o'clock M., at the office of the Commissioners.

These resolutions were also adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, Commissioner Spencer and Commissioner Dowd.

The Chief Engineer returned the forms of contract, specifications and bonds submitted by the Commissioner of Public Works on the 12th inst., the same having been examined and approved by the Engineers of the Depart-

ment of Public Works and this Commission; whereupon the MAYOR offered the following resolution:

Resolved, That the forms of contract, specifications and bonds for the construction of the new Aqueduct in Westchester County, submitted to this Commission by the Commissioner of Public Works on the 12th inst., be and the same are hereby approved and adopted; and the Secretary is hereby directed to have triplicate copies thereof prepared for certification by the Aqueduct Commissioners, and by the Counsel to the Corporation as to form, and filed in accordance with Section 25 of Chapter 490 of the Laws of 1883.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, Commissioner Spencer and Commissioner Dowd.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Thursday, November 13, 1884.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

The Commissioners resumed the consideration of the bids received October 29th, for the construction of Sections A and B of the new Aqueduct in the Twenty-fourth Ward, and after full discussion of the respective bids came to the conclusion not to accept any one of said bids, but to reject the whole and to resume the open session, and take formal action accordingly.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF SPECIAL MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, November 17, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner JAMES C. SPENCER.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

(Commissioner Dowd absent from the city.)

The MAYOR stated his object in calling the Special Meeting to be the consideration of the cross-section plans prepared by the Chief Engineer showing modifications of the form of the Aqueduct, and for other purposes.

The Chief Engineer submitted cross-section plans showing the various forms to be used in the construction of the Aqueduct, and the specifications prepared to embrace all of said forms; whereupon the following resolution was offered by Commissioner SPENCER:

Resolved, That the cross-section plans Nos. 1, 2½, 3½, 6½, 7½, 8½, 8½, 9½, 12, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31, now submitted by the Chief Engineer for the construction of the new Aqueduct, showing both the circular and the modified form authorized by the resolution of April 23, 1884, be and the same are hereby approved and adopted as the forms in which the said Aqueduct shall be constructed.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works and Commissioner Spencer.

The Chief Engineer submitted estimates of the cost of the several sections of the new Aqueduct in Westchester County and the upper part of the Twenty-fourth Ward in the City of New York, and recommended the amount of security to be required from bidders upon each section as follows:

For Section 2	$190,000
For Section 3	176,000
For Section 4	180,000
For Section 5	87,000
For Section 6	70,000
For Section 7	165,000
For Section 8	140,000
For Section 9	160,000

Commissioner THOMPSON then offered the following resolution:

Resolved, That the above-named amounts recommended by the Chief Engineer be and the same are hereby fixed as the amounts of security to be exacted from bidders for the construction of the new Aqueduct in Westchester County and the upper part of the City of New York; with not less than two satisfactory sureties who shall be householders or resident freeholders of the State of New York, and who shall collectively qualify for double the amount of the security; or in lieu of said individual sureties, an approved surety company incorporated under the laws of the State of New York.

This resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works and Commissioner Spencer.

Commissioner THOMPSON then offered the following resolution:

Resolved, That the time within which the above-named sections of the new Aqueduct shall be completed shall be the same as for Sections A and B, viz., thirty-three calendar months from the execution of the contract.

This resolution was carried by the affirmative vote of the Mayor, the Comptroller, Commissioner of Public Works and Commissioner Spencer.

On motion of the COMPTROLLER, the selection of the daily papers in which the advertisement shall be pub-

lished, as required by Section 26 of the act, was then considered, and the following papers were selected, viz., the *World*, the *Times* and the *Star*, and the Secretary was directed to commence said advertisement as soon as practicable, not later than Thursday, the 20th, and to continue the same daily up to and including December 8th prox. in the said daily papers and in the *City Record*.

The Special Meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 19, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioner JAMES C. SPENCER.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated and Adjourned Meetings of November 7th, 10th, 12th, 13th and 17th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 415, and on motion of the COMPTROLLER, said vouch-

ers were approved and ordered certified to the Comptroller for payment.

The Secretary presented an opinion received from the Counsel to the Corporation, dated November 18, 1884, in response to the resolutions of the Commissioners of the 12th inst., in relation to the application of the Civil Service regulations to the appointees of this Commission. The communication was read and ordered placed on file for future consideration.

Chief Engineer Church presented a letter, dated November 19, 1884, asking for action upon his report of October 8, 1884, relating to the engineers for Divisions A and B of the new Aqueduct; and also asking for action upon the assignment of engineers for the divisions of the Aqueduct in Westchester County.

On motion of the MAYOR, this communication was referred to the Committee of Finance and Audit for consideration and report.

The Chief Engineer also presented a communication, dated November 19, 1884, in relation to the cost of the two underground transits, of which the purchase was authorized on the 30th of September last; and on motion of Commissioner SPENCER, it was

Resolved, That the Chief Engineer be and he is hereby authorized to direct Messrs. Heller & Brightly to complete said underground transits in the manner stated in the above-named communication, at an additional cost of $65 each, making the total cost thereof $365 each instead of $300, as previously authorized.

The Secretary then reported that, in obedience to his instructions of the 13th inst., the first advertisement for bids or proposals for constructing the eight sections of the new Aqueduct in Westchester County, and the readvertisement for bids for constructing Sections A and B in New York City had been prepared, and would appear in the *Times*, *World*, *Star* and *City Record* of to-morrow morning, the 20th inst.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, November 26, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER and WILLIAM DOWD.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of November 19th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 416 to 423, and on motion of the COMPTROLLER, said vouchers were approved and ordered certified to the Comptroller for payment.

The Committee also reported a recommendation that the Secretary be authorized to supply to contractors copies of the lithograph maps and plans of Sections 2 to 9 of the new Aqueduct in Westchester County, at a charge of $15 per set, which recommendation was approved, and the Secretary directed to pay over to the Comptroller the moneys received for said plans.

The Secretary presented a communication from the Comptroller, dated November 22, 1884, giving notice of warrants issued by him on vouchers appertaining to the appointment of Commissioners of Appraisal, not certified by this Commission, and amounting to $19,037.80. The communication was ordered placed on file, and proper entry thereof to be made in the books of this Commission.

The Secretary also presented an application from Mr. S. A. Lathrop for the position of Auditor of this Commission, which was ordered placed on file.

The Chief Engineer presented a communication, dated November 26, 1884, suggesting an assignment to duty of the present Engineer Corps, pending the determination of the question of Civil Service examinations. The communication was read, and the following resolution was then offered by Commissioner SPENCER, and seconded by the COMPTROLLER:

Resolved, That the above-named communication from the Chief Engineer be placed upon file, and that in order to prepare for the commencement of work upon the new Aqueduct as speedily as possible after the letting of the contracts, the following temporary assignment be made from the present Engineer Corps, viz.: to each engineering division of the new Aqueduct be-

tween the Croton Dam and the Harlem River, one division engineer, two instrument men, and one rodman, and that the Chief Engineer make such assignment, and report to this Board, for its approval, the names and respective positions of the persons so assigned.

The resolution was adopted unanimously.

The Chief Engineer then called attention to the necessity of providing instruments and other outfit and equipment for the several Division Corps of Engineers, and also proper headquarters for them upon the line of their work.

On motion of Commissioner SPENCER, the matter of supplying the instruments and other outfit was referred to the Committee of Finance and Audit with power, and the Chief Engineer was directed to ascertain and report to the Board where and upon what terms the required quarters for the engineers could be obtained.

The Secretary, under his instructions of October 22d ulto., reported (verbally) the result of a conference with Mr. Jay Gould in relation to his lands near Glenville, through which the new Aqueduct will pass, and asked further time for the examination of the ground in company with the agent of Mr. Gould, and for report thereon; which request was granted.

The Stated Meeting was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 3, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Consulting Engineer Davis and Executive Engineer Fteley; also Chief Engineer Birdsall and Consulting Engineer Adams of the Department of Public Works.

The minutes of the Stated Meeting of November 26th were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 428 to 437, and on motion of the COMPTROLLER, said vouchers were approved and ordered certified to the Comptroller for payment.

In compliance with the resolution of the Commissioners of November 26th, the Chief Engineer submitted a report, dated December 3d, making assignment of engineers for the several divisions of the new Aqueduct. The report was read, ordered to be placed upon file, and spread upon these minutes, as follows:

"NEW YORK, December 3, 1884.

To the Honorable the Aqueduct Commission:

Gentlemen, - In pursuance of the resolution passed by your Commission on November 26, 1884, in regard to the Engineer Corps to be assigned to the work on the new Aqueduct, I beg to submit the following names for the position of Division Engineers, at a compensation each of $2,400 per annum:

1st	Division,	near Croton Dam;	Charles S. Gowen.
2d	"	" Sing Sing;	John B. McIntyre.
3d	"	" Tarrytown;	John M. Wolbrecht.
4th	"	" Irvington;	Alfred Craven.
5th	"	" Yonkers;	E. Sherman Gould.
6th	"	24th Ward, N. Y. City;	Frederick W. Watkins.

I have already recommended Mr. Watkins to your Commission for the position of Division Engineer in the 24th Ward; since then I have found no reason to change my opinion in regard to his fitness for that position Understanding, however, that some of the Commissioners would prefer another engineer for that division, I have to state that, should they desire to do so, Mr. Watkins could be transferred to another division without detriment to the execution of the work.

Although the work on Manhattan Island is not yet ready to be put under contract, I desire to say that it is proposed that the engineering division necessary for this

portion of the Aqueduct, with pipes, gate-houses, etc., should be put under the charge of Mr. E. Wegmann, Jr., now special assistant in the Chief Engineer's office.

I may be permitted also to remark that two of the engineers whose names have been given do not belong to the present force under the Aqueduct Commission, and that it would be desirable, in their case, to modify the temporary character of the assignment to duty mentioned in your resolution.

The names of the engineers who are proposed for assignment to duty on the Aqueduct are as follows:

Assistant Engineers, at $1,800 per year.

Evelyn P. Roberts,
Frederick H. Baldwin,
Robert H. Moore,
Fisher Morris,
(Vacant).

Transitmen, at $1,500 per year.

Robert E. Morris,
Thomas D. Whistler,
Walter McCulloh,
Curtiss Millard.

Levelers, at $1,200 per year.

John M. Stewart,
Robert Ridgway,
Carlos F. Ferrer,
(Vacant).

Rodmen, at $75 per month.

Edward S. Larned, Jr.,
Marcus Washburn,
Albert H. Porter,

Arthur H. Grant,
George H. Cunningham,
Frank N. Speyer.

The assignment of these engineers to the various divisions of the Aqueduct leaves too small a force for general work, and for the surveys which have been begun at the site of Quaker Bridge Dam, and for the reservoir, and additional appointments must be made for that purpose.

Twenty men are wanted for these duties, eight of whom only are now employed, leaving twelve appointments to be made.

Very respectfully,
(Signed) B. S. CHURCH,
Chief Engineer."

Commissioner DOWD offered the following resolution:

Resolved, That the recommendations of the Chief Engineer contained in the aforegoing report be and the same are approved, and that the persons named therein be and they are hereby appointed to the positions, and at the rates of compensation respectively recommended for them in said report; said compensation to run from the dates when they enter upon the discharge of their duties under this appointment; and the assignment of the Division Engineers therein made, for temporary organization, being subject to such changes as the Commissioners may hereafter deem necessary.

This resolution was unanimously adopted.

The Chief Engineer presented a report, dated December 2, 1884, giving an estimate of the instruments, furniture and equipment required for the engineers of the several

divisions of the new Aqueduct; and the Committee of Finance and Audit having returned to the Board, for its further consideration, the communication of the Chief Engineer, dated November 19th, relating to the same subject, both of said communications were, on motion of the MAYOR, referred to said Committee of Finance and Audit, with power; to provide from time to time such instruments, outfit and equipment as may be required for the efficient performance of the work of the several division engineer corps.

Mr. Church also presented a letter, dated December 3, 1884, in relation to the matter of the Chief Engineer's compensation; which, on motion of the MAYOR, was referred to the Committee of Finance and Audit for consideration and report.

The Commissioners then adjourned, to meet on Monday next, December 8th, at 12 o'clock M., for opening the bids for the construction of Sections A and B and 2 to 9, and for such other business as may be presented.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Monday, December 8, 1884, at 12 o'clock M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The Commissioners met pursuant to adjournment of December 3d, to open bids received in pursuance of the following notice published in the New York *Times*, New York *World*, New York *Star*, and the *City Record:*

AQUEDUCT COMMISSIONERS' OFFICE,
Room 78, Tribune Building,
NEW YORK, November 18, 1884.

TO CONTRACTORS.

Bids or proposals for constructing the new Croton Aqueduct in the Twenty-fourth Ward of the City of New York,

and in Westchester County, will be received at this office until Monday, December 8, 1884, at 12 o'clock M., at which place and hour they will be publicly opened and read by the Aqueduct Commissioners, and the award of the contracts will be made by said Commissioners as soon thereafter as practicable.

The portion of the new Aqueduct for which bids are hereby invited is mostly in tunnel, and is divided into ten sections.

Bidders can bid for either one or for more of the sections; but each section must be bid for, and will be awarded separately. Any bidder for more than one section who will not accept an award for one section only must so state in his bid.

Each bid must be inclosed in a sealed envelope, indorsed with the name of the person or persons making the same and the section for which it is made.

Each bid must state the name and place of residence of the person making the same and the names of all persons interested with them therein; also that it is made without any connection with any other person making another bid for the same work, and is in all respects fair and without collusion or fraud; that no member of the Aqueduct Commission or of the Common Council, no head of a department, chief of a bureau, deputy thereof or clerk therein, or other officer of the Corporation, or any person in the employ of the Aqueduct Commissioners, is directly or indirectly interested in the bid, or in the work to which it relates, or in the profits thereof.

Each bid must be verified by the oath of the party making the same, that the several matters therein stated are true, and must be accompanied by a certified check upon a National or State Bank of the City of New York,

drawn to the order of the Comptroller of the City of New York, for an amount not less than five per cent. of the amount of the security required for the faithful performance of the contract. Such check must not be inclosed with the bid or proposal, but must be delivered to the Aqueduct Commissioners, or to their Secretary, for delivery to the Comptroller. All deposits, except those of the successful bidders, will be returned by the Comptroller to the person making the same, within three days after the contracts are awarded. If the successful bidders shall neglect or refuse to execute the contract within ten days after notice of the award to them, the amount of their deposits will be forfeited to and retained by the City of New York as liquidated damages for such neglect or refusal, pursuant to the provisions of Section 29 of Chapter 490 of the Laws of 1883; but if they shall execute the contracts within the time aforesaid, the amount of their deposits will be returned to them.

The amount of security required in the contracts for each section is as follows:

For Section A, in the Twenty-fourth Ward, New York	$125,000 00
For Section B, in the Twenty-fourth Ward, New York	135,000 00
For Section 2, in Westchester County	190,000 00
" 3, " "	176,000 00
" 4, " "	180,000 00
" 5, " "	87,000 00
" 6, " "	70,000 00
" 7, " "	165,000 00
" 8, " "	140,000 00
" 9, " "	160,000 00

The surety required is that of two or more householders or resident freeholders of the State of New York (who must collectively qualify for double the amount of the bond), or approved surety companies incorporated under the laws of this State.

The names and residences of the sureties must be stated in the bids.

THE AQUEDUCT COMMISSIONERS RESERVE THE RIGHT TO REJECT ANY AND ALL BIDS IF THEY DEEM IT FOR THE BEST INTEREST OF THE CITY SO TO DO.

Blank forms of bid or proposal, and proper envelopes for their inclosure, forms of the contract, specifications and bond, and all other information required, can be obtained at the office of the Aqueduct Commissioners, Room 78, Tribune Building, New York.

By order of the Aqueduct Commissioners.

JAMES W. McCULLOH,
Secretary.

The bid box was opened in the presence of a large number of contractors and others, and the following bids were received for the construction of the several sections of the new Aqueduct in Westchester County, and in the Twenty-fourth Ward of the City of New York:

Brown, Howard & Co	Sections	A, B, 9 to 2, inclusive.
Collins & Rider	"	" "
Hamilton Smith, Jr.	"	" "
Howard Soule	"	" "
Weber & Wendt	"	" "
Douglass, Dalzell & Douglass	"	A, B, 9, 8, 7, 6, 5 and 4
O'Brien & Clark	"	9, 8, 7, 6, 5, 4, 3 and 2.
Arnold, Gere & Stephens	"	A, B, 9, 8, 6 and 5.
Smith & Brown	"	9, 8, 7, 6, 5 and 4.

Smith, Rutter & Ripley	Sections	A, B, 9, 8, 7 and 6.
Malone, McGrann & Co	"	6, 5, 4, 3 and 2.
Beckwith, Quackenbush & Co.	"	A, B and 9.
P. P. Dickinson	"	9, 6 and 5.
Henry W. Phelps	"	8, 7 and 6.
Heman Clark	"	A and B.
Abraham Dowdney	"	A and B.
Dowling & Kennedy	"	9 and 6.
John McQuade	"	A and B.
Smith & Beard	"	5 and 4.
Myles Tierney	"	5 and 4.
Ward, Mackin & Co	"	A and B.
Daniel E. Bailey	"	3.
Virgilio Del Genovese	"	3.
Edward Duffy	"	2.
Phelan & Westbrook	"	6.
Swift & McNamee	"	9.

All of the above named bids were publicly opened by the Aqueduct Commissioners, read aloud, and recorded as read.

The Commissioners then directed the Chief Engineer and Secretary to have said bids calculated, and properly tabulated for canvassing at 12 o'clock M. to-morrow, the 9th instant.

The Commissioners then adjourned, to meet at the above-named hour.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, December 9, 1884, at 12 o'clock M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church and Executive Engineer Fteley, and Chief Engineer Birdsall of the Department of Public Works, and many contractors.

The Secretary reported (verbally) that he had examined the details of each of the bids received, and enumerated all the inaccuracies and irregularities in filling out the bid forms in the manner required by said forms.

On motion of the MAYOR, it was

Resolved, That where a discrepancy exists between the written prices and the figures therefor, in the bids of

Weber & Wendt for Section A, item "*q*"; of Smith, Rutter & Ripley for Section B, items "*k*," "*t*" and "*t*"; and for Section 9, item "*n*," but where the true intent of the bidder is nevertheless apparent, that said bids are not informal, and that they be estimated and canvassed at the prices evidently intended to be indicated therein by the bidders; that in the bid of Douglass, Dalzell & Douglass for Section 7, the omission to name a price for item "*w*" (18-inch drain pipe) is an informality, as to the effect of which the Commissioners are not now prepared to decide, but that for the purpose of canvassing said bid the said item be calculated at the price named in the several other bids of the said bidders for the same description of pipe.

And on motion of the MAYOR, it was unanimously

Resolved, That by reason of the failure of Swift & McNamee to name in their bid for Section 9 the sureties to be given by them on their bonds (as required by the public notice and by the forms for bids), the said bid be and the same is hereby rejected for informality, and that the Secretary give notice of the rejection of said bid to Swift & McNamee, and also to the Comptroller, with the request that he return to said bidders the check deposited by them as security for said bid.

The Chief Engineer and Secretary then presented tabulated statements of the bids for the several sections of the new Aqueduct, and on motion of Commissioner SPENCER, the Commissioners went into Executive Session for the consideration of said bids.

Upon resuming the open session, the Commissioners took a recess until 5 o'clock P. M.

Upon reassembling at 5 o'clock P. M., the Commissioners, on motion of Commissioner DOWD, went into Executive Session for further consideration of the bids; and upon resuming the open session, the COMMISSIONER OF PUBLIC WORKS moved to adjourn until 3 o'clock P. M. to-morrow, the 10th instant, which motion was lost.

The MAYOR then stated that he had voted against the adjournment because he deemed it the duty of the Commissioners to make awards of the contracts now, and that he wished to make and have entered upon the minutes his protest against any further delay.

On motion of the COMMISSIONER OF PUBLIC WORKS, seconded by Commissioner SPENCER, leave was granted to the Mayor to make such protest in writing, and to have it entered upon the minutes of this meeting.

MAYOR EDSON'S PROTEST.

"I protest against further delay in awarding the contract or contracts for the construction of the new Aqueduct, for the following reasons:

"1st. The delays in the progress of the work confided to this Commission have been, in my judgment, such as to merit the expressions of discontent and displeasure which are made by our citizens.

"2d. The advertisement for bids upon the work was made with the full understanding on the part of the members of the Commission that they should be opened on the 8th of December for the express purpose of having the bids

acted upon by the same persons that prepared the specifications and who were thoroughly familiar with all the details under which the contracts were to be awarded.

"3d. In view of the fact that the official terms of one or more of the present Commissioners are about to expire, it seems unjust and unwarranted to throw upon their successors in office the responsibility which may be imposed for further delay in making the awards, or for any hasty or inconsiderate action that may be taken by them.

"4th. I also believe that the Commissioners will be publicly accused of withholding their action at this time for political reasons—a view of the affairs of the Commission greatly to be deprecated, and from which their action has been thus far happily free.

"For these and other reasons, I deem it my duty to enter an earnest protest against an evident determination to delay immediate action in a matter of such vital importance to the welfare of our city, when all the data necessary for action are before us."

The COMMISSIONER OF PUBLIC WORKS then stated that he was not now prepared to cast a definitive vote upon an award of the contracts, but required further time for consideration and for such verification as he might deem necessary of the tabulated statements of bids prepared by the Chief Engineer and Secretary of the Commission, and that as he had a very important engagement awaiting, and demanding his presence elsewhere, he felt justified in insisting upon an adjournment.

The COMPTROLLER then moved that the contracts be awarded to Brown, Howard & Co. and O'Brien & Clark,

at the prices named in their bids respectively, and amounting, upon the Engineer's estimate of quantities, as follows:

To Brown, Howard & Co. Contracts for—

Section	A	$1,053,650
"	B	1,150,687
"	9	1,340,862
"	8	1,071,430
"	7	1,301,660
		$5,918,289

To O'Brien & Clark. Contracts for—

Section	6	$578,140
"	5	701,210
"	4	1,529,757
"	3	1,486,700
"	2	1,721,500
		$6,017,307

Upon which motion the vote was, in the

Affirmative—The Mayor, Comptroller, and Commissioner Dowd.

Negative—Commissioner of Public Works, Commissioners Spencer and Baldwin.

The COMPTROLLER next moved that the contracts be awarded to Heman Clark, O'Brien & Clark and Brown, Howard & Co., at the prices named in their respective bids, and amounting upon the Engineer's estimate of quantities, as follows:

To Heman Clark. Contracts for—

Section	A	$1,051,675
"	B	1,096,065
		$2,147,740

To O'Brien & Clark. Contracts for—

Section	9	$1,333,237
"	8	1,157,285
"	7	1,376,785
		$3,867,307

To Brown, Howard & Co. Contracts for—

Section	6	$599,405
"	5	726,975
"	4	1,518,475
"	3	1,398,050
"	2	1,653,655
		$5,896,560

Upon which motion the vote was, in the

Affirmative—The Mayor, Comptroller, and Commissioner Dowd.

Negative—Commissioner of Public Works, Commissioners Spencer and Baldwin.

At 9.30 o'clock P. M. the COMMISSIONER OF PUBLIC WORKS renewed the motion to adjourn until 3 o'clock P. M. to-morrow, which motion was carried.

Comptroller Grant, whose term of office expires with this day, then took leave of his associate Commissioners, and the meeting adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Tuesday, December 9, 1884, at 12 o'clock M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The Commissioners immediately proceeded to canvass the numerous bids for constructing Sections A and B and 2 to 9, inclusive, of the new Aqueduct, and to examine the tabulated statements thereof prepared by the Chief Engineer and Secretary of the Commission, and remained in session until 4 o'clock P. M., when a recess was taken for one hour.

Upon reassembling at 5 o'clock P. M. the consideration of bids was resumed, and many votes taken, without

reaching an agreement for the award of the contract for any of the sections bid for; and at 8.30 o'clock P. M., on motion of Commissioner SPENCER, the Executive Session was adjourned and the open session resumed.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 10, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller (EDWARD V. LOEW, Esq.).
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church and Executive Engineer Fteley, and Chief Engineer Birdsall of the Department of Public Works.

The minutes of the meetings of the 3d and 8th inst. were read and approved. The minutes of the meeting of the 9th inst. were also read, and ordered to be amended and reread at the next Stated Meeting.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session for further canvassing of the bids received on the 8th inst.; and upon resuming

the open session, Comptroller LOEW stated that having but just entered upon the discharge of his duties as Comptroller of the City of New York, and having had no opportunity to acquaint himself with the proposed plans for constructing the new Aqueduct, he was not now prepared to act upon a matter of such great importance as awarding contracts upon the bids now under consideration by the Commissioners; and he therefore asked time to examine the plans, and to inform himself with regard to the numerous bids for the work, so far as it was possible so to do without unnecessary delay.

On motion of the COMMISSIONER OF PUBLIC WORKS, it was unanimously

Resolved, That, in compliance with the request of Comptroller Loew, the further consideration of the bids for constructing Sections A and B and 2 to 9, inclusive, be deferred until Saturday next, the 13th inst., at 3 o'clock P. M.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF EXECUTIVE SESSION

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 10, 1884.

Commissioners present:

The Mayor.
The Comptroller (EDWARD V. LOEW, Esq.).
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The MAYOR and associate Commissioners made brief statements and explanations for the information of Commissioner Loew with regard to the plans for constructing the new Aqueduct, and the bids received therefor on the 8th instant, and expressed a desire to afford him as full opportunity as could possibly be given for acquainting him with the details of said plans and bids without too great delay in awarding the contracts.

It was then agreed that upon resuming the open session, an adjournment should be taken until 3 o'clock P. M. on Saturday next, at which time the consideration of the bids will be resumed.

The Executive Session was then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, December 13, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley and Consulting Engineer Davis; also Chief Engineer Birdsall of the Department of Public Works, and also a large number of contractors and others.

The Commissioners met in pursuance of the adjournment from the 10th inst., for the further consideration of the bids and awarding of the contracts for the construction of the sections of the new Croton Aqueduct between the Harlem River and the Croton Dam.

On motion of the MAYOR, the reading of the minutes of

the meetings of the 9th and 10th inst. was deferred until the next Stated Meeting.

On motion of Commissioner SPENCER, the Commissioners then went into Executive Session; and upon resuming the open session, Commissioner BALDWIN moved, "That the bid (No. 97) of Heman Clark, for the construction of Section A of the new Croton Aqueduct in the Twenty-fourth Ward of the City of New York be accepted, and that the contract for the performance of the work on said section, and furnishing the materials necessary therefor, be and the same is hereby awarded to said Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMMISSIONER OF PUBLIC WORKS then moved, "That the bid (No. 98) of Heman Clark, for the construction of Section B of the aforesaid Aqueduct in the Twenty-fourth Ward of the City of New York be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMPTROLLER next moved, "That the bid (No. 106) of O'Brien & Clark, for the construction of Section 9 of the aforesaid Aqueduct in the upper part of the Twenty-fourth Ward of the City of New York, and in the lower part of Westchester County, be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said O'Brien & Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

Commissioner BALDWIN then moved, "That the bid (No. 105) of O'Brien & Clark, for the construction of Section 8 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said O'Brien & Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMMISSIONER OF PUBLIC WORKS moved, "That the bid (No. 104) of O'Brien & Clark, for the construction of Section 7 of the aforesaid Aqueduct in Westchester

County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said O'Brien & Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMPTROLLER moved, "That the bid (No. 103) of O'Brien & Clark, for the construction of Section 6 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said O'Brien & Clark, upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

Commissioner SPENCER moved, "That the bid (No. 24) of Brown, Howard & Co., for the construction of Section 5 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said Brown, Howard & Co., upon the terms and condi-

tions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

Commissioner DOWD moved, "That the bid (No. 23) of Brown, Howard & Co., for the construction of Section 4 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said Brown, Howard & Co., upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMPTROLLER moved, "That the bid (No. 22) of Brown, Howard & Co., for the construction of Section 3 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said Brown, Howard & Co., upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the

Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

Commissioner BALDWIN moved, "That the bid (No. 21) of Brown, Howard & Co., for the construction of Section 2 of the aforesaid Aqueduct in Westchester County be accepted, and that the contract for the performance of the work on said section, and furnishing the material necessary therefor, be and the same is hereby awarded to said Brown, Howard & Co., upon the terms and conditions set forth in the forms of the contract and specifications approved by this Commission, for the said section, and at the prices named in said bid."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The MAYOR moved, "That the Secretary be and he is hereby directed to give immediate notice to the above-named bidders of the acceptance of the bids, and the award of the contracts now made, and to notify them to execute the contracts and bonds, and to furnish the sureties therefor, within ten days of the receipt of such notice of the awards to them."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd aud Baldwin.

Commissioner DOWD then moved, "That the Secretary be and he is hereby directed to notify the Comptroller of the City of New York of the above-named awards of contracts, and to request him to return, as provided in Section

29 of Chapter 490, Laws of 1883, all the deposits delivered to him by the Commissioners on the 10th inst. (excepting those upon the bids now accepted) to the persons by whom said deposits were made."

This motion was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The Committee of Finance and Audit then made report of the meeting held by said Committee on the 10th inst., at which the following resolutions were passed:

"1st. *Resolved*, That this Committee recommend to the Board that the Chief Engineer be authorized to secure the necessary headquarters for the several division engineer corps upon or near the line of the new Aqueduct, between the Harlem River and Croton Dam, as stated by him in his communication of this date, at a total rent for such headquarters not to exceed the sum of $2,500 per annum.

"2d. *Resolved*, That the Committee recommend to the Board an increase of the salary of the Chief Engineer to the sum of $10,000 per annum."

On motion of the MAYOR, the first of the above recommendations was approved, and the Chief Engineer was authorized to obtain the headquarter offices as described in his report of the 10th inst., at a total cost of not to exceed $2,500 per annum.

On motion of Commissioner BALDWIN, the second of the above-named recommendations was also approved, and by the unanimous vote of the Commissioners the

compensation of the Chief Engineer was increased to the sum of ten thousand dollars per annum, to commence on the 1st of January, 1885.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 17, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley, and Chief Engineer Birdsall of the Department of Public Works.

The minutes of the meeting of the 10th and 13th inst. were read and approved, and the minutes of the meeting of December 9th as amended by direction of the Commissioners on the 10th inst. were approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 438

to 451, which, on motion of Commissioner DOWD, were approved and ordered certified to the Comptroller for payment.

The Committee also made the following report:

"1st. That the Board appropriate the sum of $2,100 for furnishing and fitting up the headquarter offices of the several division engineers, the same to be done under the supervision and direction of the Chief Engineer.

"2d. That the Chief Engineer be authorized to procure the necessary transits, levels and other field instruments, as detailed in his report of December 2, 1884, at a cost of not exceeding the sum of $2,417.

"3d. That the sum of $3,000 be appropriated for the purchase of such horses, wagons, harness and stable supplies as may be from time to time required for the use of the said division engineers.

"4th. The Secretary having reported that the appropriations made October 10, 1883, for stationery and drawing materials in the office of the Chief Engineer and in the office of the Commissioners are nearly exhausted, the Committee recommend to the Board a further appropriation of $1,000 for the purchase of drawing materials and stationery for the office of the Chief Engineer, and of $500 for stationery for the office of the Commissioners."

On motion of the MAYOR, the recommendations of the Committee of Finance and Audit were approved, and it was unanimously

Resolved, That the following appropriations be made, viz.:

1st. For furniture and fitting up the headquarter

offices for the engineers upon the six divisions of the new Aqueduct, between the Harlem River and the Croton Dam, the sum of $2,100.

2d. For transits, levels and other field instruments, as detailed in the report of the Chief Engineer to the Committee of Finance and Audit, dated December 2, 1884, the sum of $2,417.

3d. For horses, wagons, harness, blankets and stable furnishings, as the same may be from time to time required, the sum of $3,000.

4th. For drawing materials and stationery for the office of the Chief Engineer, the sum of $1,000; and for the office of the Commissioners, the sum of $500.

The Secretary presented a communication from the Comptroller, dated December 13, 1884, giving notice of the issuance of warrants for payment of certain sums appertaining to the work of the Commissioners of Appraisal, and not certified by this Commission, amounting to $3,446.80; which communication was ordered placed on file, and proper entries thereof made upon the books of this Commission.

The Secretary explained to the Board the omission of some minor details in the copies of property maps prepared by the Department of Public Works for the use of the Commissioners of Appraisal of New York City and County, which omissions were now being corrected, and which correction required the approval of this Board.

Thereupon Commissioner BALDWIN offered the following resolution:

Whereas, In the preparation by the Department of Public Works of the 4th, 5th and 6th copies of the property maps for the use of the Commissioners of Appraisal for the City and County of New York certain details were omitted from such copies, it is

Resolved, That we hereby approve of all such additions to said maps as shall be made by the Commissioner of Public Works to conform said maps in all particulars with the maps approved by this Commission, and now on file in the office of the Register of the City and County of New York.

The resolution was adopted by the affirmative vote of the Mayor, Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

Chief Engineer Church presented a communication, dated December 17, 1884, recommending that by reason of his repeated absence from duty without leave the services of Alfred de la Cornilleré as Mechanical Draughtsman be dispensed with.

This recommendation was approved unanimously, to take effect immediately.

The matter of the completion of the contracts awarded on the 13th inst. was then considered, and, on motion of the MAYOR, the matter of the execution of the bonds and the sufficiency of the sureties offered by the contractors was referred to the Committee of Finance and Audit for adjustment, and report to this Board on Saturday next, 20th inst., at 3 o'clock P. M.; and the hour of 12 o'clock M.

of the same day was fixed for the execution of the contracts awarded to Messrs. Brown, Howard & Co.

The Commissioners then adjourned, to meet at 3 o'clock P. M., on Saturday, 20th inst.

JAMES W. McCULLOH,
Secretary.

MINUTES OF ADJOURNED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Saturday, December 20, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

The Commissioners met pursuant to the adjournment from December 17th, for consideration of the report of the Committee of Finance and Audit upon the sufficiency of the sureties offered by Messrs. Brown, Howard & Co., and for the execution of the contracts awarded to them.

On motion of the MAYOR, the reading of the minutes of the meeting of the 17th was deferred until the regular meeting of Wednesday next.

The Committee of Finance and Audit presented the following report:

"AQUEDUCT COMMISSION,
Saturday, December 20, 1884.

To the Aqueduct Commissioners:

Gentlemen,—The Committee of Finance and Audit report that they have examined and satisfied themselves of the sufficiency of the sureties offered by Messrs. Brown, Howard & Co. for the faithful performance of the contracts awarded to them for the construction of Sections 5, 4, 3 and 2 of the new Aqueduct; and that the contracts and bonds have been prepared and duly executed for each and all of said sections by Walston H. Brown of New York City, Columbus R. Cummings, William B. Howard, George Chambers, and Archie J. McBean of Chicago, Illinois, and Duncan D. McBean of Portland, Oregon, as principals; and Calvin S. Brice, Samuel Thomas and Frederick A. Brown of New York City, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of the said contracts.

And the Committee recommend the approval of said sureties by the Commissioners, and the execution and certification of the said contracts by them.

(Signed) WILLIAM DOWD,
JAMES C. SPENCER,
C. C. BALDWIN,
Committee."

On motion of the COMPTROLLER, the report of the Committee was received and their action approved.

Commissioner SPENCER then stated that although Messrs. Brown, Howard & Co. had executed the contracts on their part, they nevertheless desired the benefit of the full term of ten days within which they were required to

execute the same, which seemed to him to be a proper and reasonable request, and would be accomplished by deferring the execution of the contracts until the next meeting of the Commissioners; wherefore he moved that the Commissioners defer the execution of the above-named contracts with Brown, Howard & Co. until Wednesday next, the 24th inst.

The motion was seconded by the COMPTROLLER, and was adopted unanimously.

The Secretary reported that the owners of several of the houses recommended by the Chief Engineer in his report of December 10, 1884, for headquarters of the division engineers on the new Aqueduct had agreed to accept the rentals stated in said report, and were prepared to execute leases therefor; whereupon Commissioner SPENCER offered the following resolution:

Resolved, That the Secretary is hereby directed to prepare leases for the dwelling houses for the use of the division engineers, as described in the report of the Chief Engineer, dated December 10, 1884; and that, after the same shall have been examined and approved by the Committee of Finance and Audit, the President of the Commission is authorized and requested to execute said leases on behalf of the Commissioners.

The resolution was unanimously adopted.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

MINUTES OF STATED MEETING

OF THE

AQUEDUCT COMMISSIONERS,

Held at their Office, No. 78 Tribune Building, Wednesday, December 24, 1884, at 3 o'clock P. M.

Commissioners present:

The Mayor.
The Comptroller.
Commissioner of Public Works.
Commissioners JAMES C. SPENCER, WILLIAM DOWD and C. C. BALDWIN.

Also Chief Engineer Church, Executive Engineer Fteley and Consulting Engineer Davis, and Chief Engineer Birdsall of the Department of Public Works.

The minutes of the Stated Meeting of the 17th and Adjourned Meeting of the 20th inst. were read and approved.

The Committee of Finance and Audit reported the examination and audit of bills included in vouchers Nos. 452 to 456, which, on motion of Commissioner DOWD, were approved and ordered certified to the Comptroller for payment.

The Secretary presented a communication from the Comptroller, dated December 20, 1884, giving notice of the issue of a warrant for payment of voucher for expenditures in the matter of appointment of Commissioners of Appraisal for Westchester County, and not certified by the Aqueduct Commissioners, amounting to $472.60; which communication was ordered placed upon file, and proper entry thereof made upon the books of this Commission.

The Chief Engineer presented two communications, dated December 24, 1884. 1st. A letter from Executive Engineer Fteley in relation to his compensation, and endorsed with a recommendation by the Chief Engineer. 2d. A letter of the Chief Engineer in relation to the compensation of the Engineer of Construction, and of the Property Clerk in the Engineer's office at Tarrytown, and asking for the appointment and detail to service in the Chief Engineer's office of an assistant, with the rank of Rodman; which communications were read and ordered placed on file.

On motion of the COMMISSIONER OF PUBLIC WORKS, the recommendation of Chief Engineer Church in relation to the compensation of Executive Engineer Alphonse Fteley was approved; and it was unanimously

Resolved, That the compensation of Alphonse Fteley, Executive Engineer of this Commission, be increased to the sum of seven thousand dollars per annum, to date from the 1st of January next.

In relation to the recommendation of the Chief Engineer for an increase of the compensation of the Engineer

of Construction, Commissioner DOWD offered the following resolution:

Resolved, That the compensation of Engineer of Construction Henry S. Craven be fixed at the rate of six thousand dollars, instead of five thousand dollars, per annum, as recommended by the Chief Engineer.

The amendment was adopted by the following vote:

In the affirmative—The Mayor, Comptroller, Commissioner Spencer and Commissioner Dowd.

In the negative—Commissioner of Public Works and Commissioner Baldwin.

On motion of the COMMISSIONER OF PUBLIC WORKS, the recommendations of the Chief Engineer, as above amended, were then adopted; and it was unanimously

Resolved, That the compensation of Engineer of Construction Henry S. Craven be increased to the sum of six thousand dollars per annum; that the compensation of William W. Procter, Property Clerk in the Engineer's office at Tarrytown, be increased to the sum of one hundred and twenty-five dollars ($125) per month, and that Ira A. Shaler be and he is hereby appointed to the position of Rodman in the Engineer Department of this Commission, at a compensation of seventy dollars per month; all of the above to take effect from the 1st day of January next.

The Secretary then asked the attention of the Commissioners to the selection and appointment of an Auditor, the increasing work of the Commission now demanding the services of a competent person in that capacity; and,

on motion of the MAYOR, the matter was referred to the Committee of Finance and Audit for consideration and report.

The Committee of Finance and Audit, to which was referred the matter of the execution of the contracts and bonds, and the sufficiency of the sureties offered by the contractors for Sections A, B, 9, 8, 7, 6, 5, 4, 3 and 2 of the new Aqueduct, then presented the following report:

"AQUEDUCT COMMISSION,
Wednesday, December 24, 1884.

To the Aqueduct Commissioners:

Gentlemen,—The Committee of Finance and Audit report that they have examined and satisfied themselves of the sufficiency of the sureties offered by Heman Clark for the faithful performance of the contracts awarded to him for constructing Sections A and B of the new Croton Aqueduct, and that the contracts and bonds have been prepared and duly executed for said sections, as follows:

Section "A."—By Heman Clark, as principal, and Cornelius H. Delemater, of New York City, and Samuel D. Coykendall, of Kingston, Ulster County, New York, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

Section "B."—By Heman Clark, as principal, and Timothy J. Sullivan, of the City and County of Albany, New York; Erastus Wiman, of New Brighton, Richmond County, New York, and James William Hinkley, of Poughkeepsie, Dutchess County, New York, as sureties;

the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

And the Committee recommend the approval of said sureties by the Commissioners, and the execution and certification of the said contracts by them.

The Committee further report that they have examined and satisfied themselves of the sufficiency of the sureties offered by O'Brien & Clark for the faithful performance of the contracts awarded to them for constructing Sections 9, 8, 7 and 6 of the new Croton Aqueduct, and that contracts and bonds have been prepared and duly executed for said sections, as follows:

Section 9.—By John O'Brien and Heman Clark, as principals, and Thomas Cornell, of Kingston, Ulster County, New York; George H. Robinson, of New York City; James L. Williams, of Poughkeepsie, Dutchess County, New York, and Maurice B. Flynn, of New York City, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

Section 8.—By John O'Brien and Heman Clark, as principals, and Thomas Cornell, of Kingston, Ulster County, New York, and Edward Kearney, of New York City, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

Section 7.—By John O'Brien and Heman Clark, as principals, and Lewis Rider, of Rhinebeck, Dutchess County,

New York; Thomas Cornell, of Kingston, Ulster County, New York, and R. P. Huntington, of Rhinebeck, Dutchess County, New York, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

Section 6.—By John O'Brien and Heman Clark, as principals, and Samuel D. Coykendall, of Kingston, Ulster County, New York; Charles H. Field, of New York City, and Maurice B. Flynn, of New York City, as sureties; the said sureties having collectively justified for double the amount of the security required by the Commissioners for the faithful performance of that contract.

And the Committee recommend the approval of said sureties by the Commissioners, and the execution and certification of the said contracts by them.

(Signed) WILLIAM DOWD,
JAMES C. SPENCER,
C. C. BALDWIN,
} *Committee.*"

The COMPTROLLER moved that the report of the Committee be received and placed upon file, and that the contracts with Brown, Howard & Co. for Sections 2, 3, 4 and 5 of the new Aqueduct be now executed and certified by the Commissioners.

This motion was adopted unanimously.

Commissioner DOWD moved that the Commissioners now execute and certify the contracts with Heman Clark for Sections A and B of the new Aqueduct; which motion was also adopted unanimously.

Commissioner DOWD next moved that the Commissioners now also execute the contracts with O'Brien & Clark for Sections 9, 8, 7 and 6 of the new Aqueduct; which motion was adopted by the following vote:

In the affirmative—Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

In the negative—The Mayor.

The above-named contracts with Brown, Howard & Co. and with Heman Clark were then duly executed and certified in triplicate by each and all of the Commissioners; and the above-named contracts with O'Brien & Clark were duly executed and certified in triplicate by the Comptroller, Commissioner of Public Works, and Commissioners Spencer, Dowd and Baldwin.

The COMMISSIONER OF PUBLIC WORKS then offered the following resolution:

Resolved, That of the three originals of the above-described contracts, now executed and certified as required by Section 30, Chapter 490 of the Laws of 1883, the Secretary is hereby directed to deliver one to the said contractors, one to the Comptroller of the City for filing in the Finance Department, and to place the remaining one upon file in the records of this Commission; and he is further directed to transmit copies of said originals to the Commissioner of Public Works for filing in his department.

The Commissioners then adjourned.

JAMES W. McCULLOH,
Secretary.

NOTE.—On Wednesday, December 31, 1884, at the regular hour of meeting, Commissioners Spencer, Dowd and Baldwin attended; and at 4 o'clock P. M., no quorum being present, the Stated Meeting was adjourned by them until Wednesday next, January 7, 1885, at 3 o'clock P. M.

JAMES W. McCULLOH,
Secretary.

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